Fordham Intellectual Property, Media and Entertainment Law Journal

Volume 31 *XXXI*
Number 4

Article 6

2021

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Cover Page Footnote

J.D. Candidate, Fordham University School of Law, 2022; B.E., Biomedical Engineering, Macaulay Honors College at City College of New York, 2017. I would like to thank Professor Shlomit Yanisky-Ravid for her support in writing this Note, as well as for sharing her immense knowledge of emerging technologies. I would also like to extend my sincerest gratitude to the IPLJ Editorial Staff, specifically Sara Mazurek, for their invaluable comments and guidance. Lastly, thank you to my father, Ira Rubinstein, for his constant love and encouragement.

Taxing Big Data: A Proposal to Benefit Society for the Use of Private Information

Ziva Rubinstein*

Artificial intelligence, the technology that is currently shaping our world, relies on the data that each individual supplies. In 2017, the Economist magazine asserted that "the world's most valuable resource is no longer oil, but data." This assertion is supported by the current data market, which became a hundred-billion-dollar industry in the data broker market alone. However, despite its immense value, individuals are not compensated when their data is collected, shared, or when that data is used to replace them in the job market. Further, companies are legally avoiding taxes on this resource, both during its collection and on the profits it creates.

Prior to the widespread use of AI, society expected their private information to be respected. Before the internet boom, companies were willing to pay the public for their information. When information was supplied, people expected some form of payment in return. Now, payment is unnecessary because our phones automatically give companies all of the data they need to know, and then some. Companies have become more reliant on our information and are constantly collecting it at higher rates, but no longer pay us because they no longer need our consent.

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Currently, no legal regime provides solutions or safeguards for this exploitation. This allows companies to accumulate and share mass amounts of personal information, while financially harming individuals in the process. Recognizing the importance of the legislature to combat the resulting harms of emerging innovation, this Note proposes a unique solution which addresses both the exploitation of our data and corporate tax avoidance: a tax on the data itself.

INTRODUCTION

We are living in the information age. It is an exciting and revolutionary era that has opened up a world of possibilities, as well as a world of threats to our privacy. The ability to have information at our fingertips has changed how we think, feel, and act, even on levels of which we are unaware.[1] But how has this information age become possible? Essentially, because of you.

Almost every individual, whether they use the internet or not,[2] is contributing to the information age because it is fueled by *our data.* Data about each person is constantly collected, which has led to technology that many have become reliant on in their everyday lives. Whether they are using GPS, social media, streaming entertainment, or online shopping—data is being collected.[3] The value that data brings to these companies has created an extreme demand for it, which has led to a reliance on artificial intelligence to collect and analyze this data. The use of AI has led to a data boom, and an astonishing 90% of the world's data has been created in the last two years alone.[4]

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1 *See generally* Igor Pantic, *Online Social Networking and Mental Health,* CYBERPSYCH., BEHAV., AND SOC. NETWORKING (Oct. 1, 2014), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4183915/ [https://perma.cc/4DYZ-5W6T] (discussing the effect of social media on depression and mental health); *see also* Erik Huizer, et al., *A Brave New World: How the Internet Affects Societies*, INTERNETSOCIETY (July 25, 2017), https://www.internetsociety.org/resources/doc/2017/a-brave-new-world-how-the-internet-affects-societies/ [https://perma.cc/7ZGY-A4K9] (discussing how the internet affects social norms and our daily lives); *see also* Iris Hearn, *How the Internet Has Changed Buying Behavior,* IMPACT (Jan. 5, 2020), https://www.impactplus.com/blog/how-has-the-internet-changed-buying-behavior [https://perma.cc/278B-W2PU] (discussing how the internet can affect our buying habits and what marketers pay attention to).

2 Jessica Baron, *Think Your Data is Private Because You're Not on Social Media? Think Again*, FORBES (Jan. 23, 2019), https://www.forbes.com/sites/jessicabaron/2019/01/23/think-your-data-is-private-because-youre-not-on-social-media-think-again/ [https://perma.cc/3ZPT-UCJD].

3 *See* Marina Zlatanovic, *Big Data and Us: How Our Lives Are Affected*, AITHORITY (July 26, 2019), https://aithority.com/guest-authors/big-data-and-us-how-our-lives-are-affected/ [https://perma.cc/8C84-9RMM].

4 Jacquelyn Bulao, *How Much Data is Created Every Day in 2020,* TECHJURY (Sept. 10, 2020), https://techjury.net/blog/how-much-data-is-created-every-day/ [https://perma.cc/5HKN-NLG2].

Currently, Google processes over 3.5 billion searches a day,[5] and it records every one of these searches.[6] Google also records every YouTube video watched, logs everywhere people go, how they got there, and how long they stayed—whether the app is open or not.[7] Google collects information from approximately 85% of websites and as many as 94% of Play store apps.[8] They are collecting information from all of these sources, but it's not just Google. Most companies follow a similar practice, such that at least 2.5 quintillion bytes of data are collected about each person, each day.[9]

Whether the data is being used for an altruistic purpose or a nefarious purpose, it is still our data. This fact has led to a controversy over individual data rights, and if companies should continue to be allowed to exploit our privacy. Some propose that individuals should have greater data rights,[10] and others propose the regulation or prohibition of specific data types.[11] This Note, as opposed to solely focusing on ending data misuse, seeks to allow individuals to benefit from the commercial exploitation of data.

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5 *See id.*

6 Dale Smith, *Google Collects a Frightening Amount of Data About You. You Can Find and Delete It Now*, CNET (June 28, 2020), https://www.cnet.com/how-to/google-collects-a-frightening-amount-of-data-about-you-you-can-find-and-delete-it-now/ [https://perma.cc/5QXP-8WSS].

7 *See id.*

8 Bennet Cyphers, *Google Says It Doesn't 'Sell' Your Data. Here's How the Company Shares, Monetizes, and Exploits It*, ELEC. FRONTIER FOUND. (Mar. 19, 2020), https://www.eff.org/deeplinks/2020/03/google-says-it-doesnt-sell-your-data-heres-how-company-shares-monetizes-and [https://perma.cc/T33G-DFVU].

9 Bulao, *supra* note 4. A byte is the basic unit of information, used to describe the storage capacity of electronic devices. For example, iPhones can have a storage capacity of 32 gigabytes (3.2×10^{10} bytes or "GB"). While an individual could take years to fill this iPhone's storage, the amount of data that companies take from just one individual is enough to fill over 78 million iPhones in one day.

10 Cameron F. Kerry & John B. Morris, Jr., *Why Data Ownership is the Wrong Approach to Protecting Privacy*, BROOKINGS INST. (June 26, 2019), https://www.brookings.edu/blog/techtank/2019/06/26/why-data-ownership-is-the-wrong-approach-to-protecting-privacy/ [https://perma.cc/5HGZ-L3BQ].

11 *See, e.g.*, Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC, 2016 O.J. (L 119) 1 (EU) [hereinafter "GDPR"]. *See also infra* Section I.B.2 for information on state, federal, and international privacy approaches.

Currently, companies are collecting data and profiting immensely from it, but the people they are taking it from are not being compensated for its use. Even further, the companies generating the most profit from this data avoid the taxations on that profit.[12] Data is being treated as a free resource—despite the public wanting compensation when their data is shared[13]—which has incentivized companies to continue taking the data at an alarming rate.[14]

Both corporate data use, as well as trends of corporate tax expenditures, create financial burdens on the average person. This Note proposes instituting a specific tax on the amount of data acquired by large companies, creating an increase in tax revenue that will benefit, or "pay back," the public who supplied it. Part I will describe how artificial intelligence has made our data valuable, and why individuals do not receive direct compensation for its use. Part II will discuss the role of individuals as data suppliers, as well as negative effects of data practices. This Part will also discuss the societal harms which stem from current corporate tax avoidance, followed by a brief introduction to competing approaches to data rights. Part III will propose the tax solution, highlighting both immediate and long-term benefits, as well as the data tax's potential to improve privacy protections. This Note reflects upon the corporate mistreatment of data, as well as the changes it has made to society. Privacy and data autonomy are no longer expected, and our laws must act to reshape our social norms.

I. HOW COMPANIES PROFIT FROM OUR DATA . . . AND WHY WE DON'T

As of 2017, it was estimated that our data was worth approximately $1,000 a year per person, and the amount of yearly data taken

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12 *See generally*, Doron Narotzki, *Corporate Social Responsibility and Taxation: The Next Step of the Evolution*, 16 HOUS. BUS. & TAX L.J. 167, 168 (2016).

13 *See* Kerry & Morris*, supra* note 10. A 2019 Insights Network survey found that 79% of respondents want compensation when their data is shared. Will.i.am, a tech entrepreneur and member of the musical group Black Eyed Peas, argues that payment for our data will remedy the imbalance between individuals and the large companies using our data. *Id.*

14 Jeffrey Ritter & Anna Mayer, *Regulating Data as Property: A New Construct for Moving Forward*, 16 DUKE L. & TECH. REV. 220, 254 (2018), (describing that 2.5 quintillion bytes of data were taken from each person daily in 2018, which is expected to grow fifty times by 2020).

from each person since then has only increased.[15] Emerging technologies have given data immense value, which is not conferred to the people who generate it. This Part will examine artificial intelligence's role in society, as well as how current laws allow private information to be harvested and used freely.

A. The Technology: How Artificial Intelligence Revolutionized Data

Artificial Intelligence ("AI") has played a vital role in the data boom. This technology is utilized constantly to collect and analyze data as well as draw valuable conclusions.[16] AI allows an unimaginable amount of information to be collected about us daily,[17] which creates billions in profits yearly.[18] This Part will provide a basic description of the capabilities of AI and how it interacts with information. It will then discuss the different types of information obtained for commercial use and why such information is valuable to companies.

1. What is Artificial Intelligence and How Does it Function?

Technological advances, mainly in artificial intelligence, have allowed the collection of our data to become quick, easy, and even automatic.[19] AI systems are algorithms designed to make independent decisions, comparable to human intelligence.[20] Arthur I. Miller, professor and author of *The Artist in the Machine: The World of AI Powered Creativity*, explained that, "artificial neural networks are loosely inspired by the way the brain is wired. They are made up of layers of artificial neurons, and, like the human brain, require data

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15 Saadia Madsbjerg, *It's Time to Tax Companies for Using Our Personal Data*, N.Y. TIMES (Nov. 14, 2017), https://www.nytimes.com/2017/11/14/business/dealbook/taxing-companies-for-using-our-personal-data.html [https://perma.cc/8HKF-QNDC].

16 *See* Andrew J. McClurg, *A Thousand Words Are Worth a Picture: A Privacy Tort Response to Consumer Data Profiling*, 98 NW. U. L. REV. 63, 70 (2003).

17 *See id.*

18 *See* Madsbjerg, *supra* note 15.

19 Shlomit Yanisky-Ravid, *Generating Rembrandt: Artificial Intelligence, Copyright, and Accountability in the 3A Era—The Human-Like Authors Are Already Here—A New Model*, 2017 MICH. ST. L. REV. 659, 673 (2017).

20 Barclay Ballard, *Artificial Intelligence Begins to Show Signs of Human-Like Creativity*, THE NEW ECONOMY, https://www.theneweconomy.com/technology/artificial-intelligence-begins-to-show-signs-of-human-like-creativity [https://perma.cc/773M-5LTG].

in order to respond to what they see and hear."[21] Among other features, these technologies are creative, independent, evolving, and have the ability to collect data and "learn."[22] Arguably, the most important aspect of AI is its ability to collect data because data is used to train the system, and therefore influences all of its determinations.[23]

To understand how AI is trained using data, the technology can be compared to a child who is first learning what animals are. A child may know that their house pet is a cat, but if that is the only cat they have seen, they may see a fluffy dog and also call it a cat. As the child sees more cats and dogs, they can easily tell the difference between the animals. An AI system works the same way but requires a greater number of examples to reach the same conclusions.[24] As an AI system is trained with more and more pictures of cats, it can learn to distinguish them from other animals and identify cats in new pictures. The AI can also evolve to distinguish between different breeds and ages. Eventually, these AI systems can become so sophisticated that they recognize patterns which a human may have never realized or expected.[25]

AI systems can also use this data to produce new combinations.[26] Producing new combinations can be described as making analogies, and sometimes making improbable combinations of

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21 *Id.*

22 *See* Yanisky-Ravid*, supra* note 19, at 659.

23 *See id.* at 672–73. *See also* Shlomit Yanisky-Ravid & Sean K. Hallisey, *"Equality and Privacy by Design": A New Model of Artificial Intelligence Data Transparency via Auditing, Certification, and Safe Harbor Regimes*, 46 FORDHAM URB. L.J. 428, 438–43 (2019).

24 *See* Imanol Arrieta-Ibarra et al., *Should We Treat Data as Labor? Moving Beyond "Free"*, 108 AM. ECON. ASSOC. PAPERS & PROC. 38, 40–41 (2018); Yanisky-Ravid & Hallisey*, supra* note 23, at 439.

25 In relation to the cats, one (fabricated) unexpected result could be that the AI found that cats with blue eyes sit differently than other cats, leading scientists to discover they have an extra muscle near their tail. For real examples of unexpected results of AI, see Eric Limer, *The Hilarious (And Terrifying?) Ways Algorithms Have Outsmarted Their Creators*, POPULAR MECHANICS (Mar. 15, 2018), https://www.popularmechanics.com/technology/robots/a19445627/the-hilarious-and-terrifying-ways-algorithms-have-outsmarted-their-creators/ [https://perma.cc/G6EL-57XK].

26 Arthur Mello, *Creativity and Artificial Intelligence,* TOWARDS DATA SCI. (May 22, 2020), https://towardsdatascience.com/creativity-and-artificial-intelligence-46de4326970c [https://perma.cc/B7HK-B8NU].

familiar ideas.[27] The AI systems do not copy already existing works, but rather create new and unpredictable works.[28] One example is an AI that creates puns by understanding what words sound similar.[29] The technology creates a new combination by understanding patterns to create a novel pun, which is more sophisticated than simply copying an existing pun or randomly generating words. In the case of our cats, that would entail the AI combining different characteristics of different breeds to create an image of a breed that does not yet exist. This principle has similarly been seen in the arts, such as creating new works "by Beethoven."[30] To do this, the AI takes all of Beethoven's works and understands the "rules" or patterns that make it Beethoven-like. It then uses these rules to make a new combination of notes, without copying an existing melody, to produce works that sound as though they are something Beethoven composed.[31]

Artificial intelligence not only evolves to make better analyses when exposed to data sets but can also independently collect data. For example, in order to collect data from webpages, AI can employ data scraping tools.[32] Data scraping allows all of the information to be taken automatically, or "scraped," from a webpage, including pages like social media profiles.[33] Further, the latest generations of chatbots are now able to proactively request needed data without

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27 *See id.*

28 Shlomit Yanisky-Ravid & Luis Antonio Velez-Hernandez, *Copyrightability of Artworks Produced by Creative Robots, Driven by Artificial Intelligence Systems and the Concept of Originality: The Formality—Objective Model*, 19 MINN. J.L. SCI. & TECH. 1, 7 (2018).

29 Margaret A. Boden, *Creativity and Artificial Intelligence*, 103 A.I. 347, 349 (1998),http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.667.3710&rep=rep1&type=pdf [https://perma.cc/ZS8D-A3ZA].

30 Mello, *supra* note 26.

31 *See id.*

32 Alex Nguyen, *The Best Data Collection Tools for Machine Learning,* LIONBRIDGE (May 25, 2020), https://lionbridge.ai/articles/best-data-collection-tools-for-machine-learning [https://perma.cc/JY9L-TQSN].

33 See HiQ Labs, Inc. v. LinkedIn Corp., 938 F.3d 985, 1005 (9th Cir. 2019), in which HiQ scraped LinkedIn profiles, including information unavailable to the public, and then sold that information to employers. The court held this was a legal activity. See also EF Cultural Travel v. Explorica, Inc., 274 F.3d 577, 579 (1st Cir. 2001), in which a travel company, Explorica, used "scrapers"—robot tools used to gather and compile information from other sites—to take information from EF and use it to improve their own prices.

human intervention. The same idea is also applied by AI-driven surveys, which can adapt depending on the type of data needed.[34] AI can also scan through documents to identify relevant information and contextual clues without being preprogrammed to do so.[35] This allows the AI to continue to take information and evolve independently,[36] becoming "smarter" as it continues to collect.

As AI collects more proper and representative data from people, it can use this data to predict human behavior and what humans may want.[37] AI usually takes all of the information that it can,[38] and this large-scale collection creates extreme issues in privacy.[39] Once companies have someone's data, other companies may access it from them, and the data is continuously held and transferred by various companies and data brokers.[40] The use of AI for the mass

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[34] Andre Smith, *Closing the Loop: How AI is Changing Data Collection*, DIGITALIST MAG. (Jan. 31, 2019), https://www.digitalistmag.com/future-of-work/2019/01/31/closing-loop-how-ai-is-changing-data-collection-06195955 [https://perma.cc/Q2Z7-QMXE].

[35] *See id.*

[36] AI is currently finding ways to evolve independently; this evolution may be compared to the theories expressed in Darwin's theory of evolution, taking inspiration from "the survival of the fittest" model. Edd Gent, *Artificial Intelligence is Evolving All by Itself,* SCI. (Apr. 13, 2020, 11:20 AM), https://www.sciencemag.org/news/2020/04/artificial-intelligence-evolving-all-itself [https://perma.cc/W7F3-JLJC]. For example, one technology created by researchers at Google simply combines basic mathematical concepts to create an AI with almost no human input (they themselves describe it as having "effectively zero human input"). *See id.* The program then creates different possibilities of algorithms by randomly combining these mathematical problems, and through each cycle the program can determine which algorithms are the best. *See id.* The best algorithms are kept or slightly improved and the cycles continue, until the AI itself has evolved into the best algorithm possible. *See id.*

[37] Omer Tene & Jules Polonetsky, *Big Data for All: Privacy and User Control in the Age of Analytics*, 11 NW. J. TECH. & INTELL. PROP. 239, 249 (2013) (explaining that the most prevalent internet business model is based on the use of targeted ads); *see also Data Collection*, DATAROBOT, https://www.datarobot.com/wiki/data-collection [https://perma.cc/G4L7-D3RP].

[38] Ron Schmelzer, *Automating Data Collection for AI at Morningstar,* FORBES (Oct. 1, 2020), https://www.forbes.com/sites/cognitiveworld/2020/10/01/automating-data-collection-for-ai-at-morningstar [https://perma.cc/9DJF-DTRB].

[39] *See* Loiuse Matsakis, *The Wired Guide to Your Personal Data (and Who is Using It)*, WIRED (Feb. 15, 2019), https://www.wired.com/story/wired-guide-personal-data-collection [https://perma.cc/W3LU-237M].

[40] For example, PayPal disclosed that it shares user data with hundreds of entities around the world. *See Your Data is Being Shared and Sold…What's Being Done About It?*,

collection and analysis of data has been instrumental to making the data boom possible.[41]

2. Our Data is Constantly Being Taken . . . What is it Used For?

Imagine a typical morning for the average person. What is the first thing they do when they wake up? Probably, they check their phone.[42] What they may not imagine is that this simple act gives companies a multitude of data on them. Firstly, from location data (that the phone stayed in the same place overnight) and lack of activity, there is now data being collected on where that person sleeps.[43] Over time, this data is used to determine where they live, and possibly where their significant other lives.[44] Sleep cycles and location data can even tell companies if this person is depressed.[45] Simply checking a cell phone can give companies an abundance of personal information, and that is only the tip of the iceberg.

Generally, companies collect four main types of data: (1) personal, (2) engagement, (3) behavioral, and (4) attitudinal data.[46] Personal data includes age, gender, social security number, sexual orientation, and browser cookies.[47] Engagement data tells businesses how people interact with their website and apps, while behavioral

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KNOWLEDGE AT WHARTON (Oct. 28, 2019), https://knowledge.wharton.upenn.edu/article/data-shared-sold-whats-done/ [https://perma.cc/3KAD-S54X]. The data broker industry profits from sharing individual information. *See* Wlosik, *infra* note 60.

41 *See id.*

42 A 2016 study found that 61% of respondents check their phone within five minutes of waking up, 88% within thirty minutes of waking up, and 96% within an hour of waking up. *61% People Check Their Phones Within 5 Minutes After Waking Up: Deloitte,* BGR.IN (Dec. 29, 2016), https://www.bgr.in/news/61-people-check-their-phones-within-5-minutes-after-waking-up-deloitte-435501 [https://perma.cc/U6ZT-VXMZ].

43 Mytheos Holt, *Google Knows Where You Sleep,* AM. SPECTATOR (Dec. 19, 2020), https://spectator.org/google-knows-where-you-sleep [https://perma.cc/QF8Z-DC7Q].

44 *See id.*

45 Sohrob Saeb, *Your Mobile Phone Knows Where You Go and What You Do—And Maybe Even When You're Feeling Down*, THE CONVERSATION (Aug. 3, 2015), https://theconversation.com/your-mobile-phone-knows-where-you-go-and-what-you-do-and-maybe-even-when-youre-feeling-down-45360 [https://perma.cc/P7EX-MNMP].

46 Max Freedman, *How Businesses Are Collecting Data (And What They're Doing with It),* BUS. NEWS DAILY (June 17, 2020), https://www.businessnewsdaily.com/10625-businesses-collecting-data.html [https://perma.cc/74T9-RHL4].

47 *See id.*

data shows purchase history and what products people buy.[48] Lastly, attitudinal data gives information on their satisfaction and what products consumers might be interested in.[49] A "robust business strategy" will use three methods to collect this data: (1) directly asking customers, (2) indirectly tracking customers, and (3) collecting data that others have already taken from those customers.[50]

After the data is taken, it must be analyzed. To do this, companies usually employ artificial intelligence. The AI technology will analyze this information to find patterns and make insights, and the technology constantly improves as it obtains more data.[51] As discussed, simple daily habits create massive amounts of data. Using the described data categories, a "profile" is built that allows AI to predict what someone likes and dislikes, what they are most likely to respond to, and anticipates what they want to see.[52] This can be useful for consumers, but it can also have individual and widespread negative effects.

The recent rise in the spreading of false information, specifically through social media, demonstrates just one potentially harmful consequence of AI. In one example, Facebook algorithms analyze which people are friends, what they watch, and how long they look at certain posts. This information is used to tailor feeds to specific interests.[53] However, if someone or their friends have recently read conspiracy theories, they are flagged as people interested in this content.[54] The system will then target them—and those most likely to interact with the content—with an increased volume of fake news and conspiracies, amplifying the disinformation.[55] This is problematic because it interferes with the flow of truthful information. An

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48 *Id.*

49 *Id.*

50 *Id.*

51 Yanisky-Ravid & Hallisey, *supra* note 23.

52 See McClurg, *supra* note 16, at 71–87, for a discussion and examples of consumer profiling.

53 Antoine Tardif, *How Facebook's AI Spreads Misinformation and Threatens Democracy,* UNITE.AI (Sept. 30, 2020), https://www.unite.ai/how-facebooks-ai-spreads-misinformation-and-threatens-democracy [https://perma.cc/YXL2-AQBY].

54 *See id.*

55 *See id*. (discussing confirmation bias and Facebook's ability to tailor individualized feeds based on predictions about interaction preferences).

MIT study revealed that fake news on Twitter will spread six times faster than real news.[56] Note that it is not a person who is targeting these people's feeds, but the AI system itself.

Companies will use these patterns and predictions to make a profit by customizing their market strategies and improving customer relationships. Consider Netflix, a company that monitors what people stream in order to recommend shows they would likely watch as well as create new content based on what people are likely to enjoy. Netflix is able to use AI's patterns and predictions to attract new customers, as well as retain current customers.[57] Companies also profit by selling information to third parties.[58] This has led to the booming data broker industry, which is comprised of companies that simply buy and sell compilations of data profiles.[59] The data broker industry generates $200 billion in yearly revenue and is continuing to grow.[60] It seems that the more data is collected, the greater the demand for data becomes.[61] To keep up with this demand, data must be collected quickly, efficiently, and on large scales, which has led to a heavy reliance on artificial intelligence to collect and analyze this data.[62]

AI has revolutionized data by collecting information at previously unfeasible rates, as well as providing useful and profitable analyses of such data. In 2018, it was estimated that each individual generated 2.5 quintillion bytes of data *each day,* (which is enough

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[56] Peter Dizikes, *Study: On Twitter, False News Travels Faster than True Stories*, MIT NEWS, (Mar. 8, 2018), https://news.mit.edu/2018/study-twitter-false-news-travels-faster-true-stories-0308 [https://perma.cc/6D5Y-PMCC].

[57] *See* Michael Dixon, *How Netflix Used Big Data and Analytics to Generate Billions*, SELERITY (Apr. 5, 2019), https://seleritysas.com/blog/2019/04/05/how-netflix-used-big-data-and-analytics-to-generate-billions/ [https://perma.cc/MLC8-F6Z6].

[58] Freedman, *supra* note 46.

[59] *See id.*

[60] Michal Wlosik, *What Is a Data Broker and How Does It Work?*, CLEARCODE (Nov. 25, 2020), https://clearcode.cc/blog/what-is-data-broker/ [https://perma.cc/W4CL-WPBN].

[61] *See* Cyphers, *supra* note 8.

[62] *See, e.g.*, *The 5 Industries That Rely on Artificial Intelligence*, ANALYTICSINSIGHT (Feb. 19, 2020), https://www.analyticsinsight.net/significant-5-industries-rely-artificial-intelligence/ [https://perma.cc/SZA9-YXKQ] (describing industries that rely on artificial intelligence and its insights).

information to fill over 78 million iPhones),[63] and this number is expected to increase exponentially by 2021.[64] This is an enormous amount of data generated daily by each person, by which companies are profiting billions of dollars yearly.[65] In 2017, when data accumulation was far less prevalent than the present day, it was estimated that this data was worth approximately $1,000 per person per year.[66] This demonstrates that our data is extremely valuable not only for the training of the AI system itself, but to the companies as a whole.

B. The Current Legal Landscape

Data is harvested and shared in mass quantities, which is usually legal.[67] This section will provide background information of the current legal landscape, and how it enables corporate data practices. It will begin by detailing property rights, followed by a description of exemplary federal, state, and foreign privacy laws. Finally, it will move on to generally explain the United States tax system, while focusing on corporate tax laws.

1. Property Laws

Some form of property law has been present since the nation's creation, and is protected by the Constitution, common law, and state law.[68] Property rights include the right to possess, the right to exclude, and the right to transfer.[69] Essentially, these rights give a property owner the ability to do what they please with their own possessions, as well as stop others from using them. Naturally, these

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63 *See supra* note 9.

64 Ritter & Mayer, *supra* note 14, at 254.

65 Saadia Madsbjerg, *It's Time to Tax Companies for Using Our Personal Data*, N.Y. TIMES (Nov. 14, 2017), https://www.nytimes.com/2017/11/14/business/dealbook/taxing-companies-for-using-our-personal-data.html [https://perma.cc/KE6E-56N9].

66 *See id.*

67 Data regulation varies based upon data type, state, and country. *See infra* Section I.B.2.

68 Roger Pilon, *Cato Handbook for Policymakers: Property Rights and the Constitution*, CATO INST. (2017), https://www.cato.org/cato-handbook-policymakers/cato-handbook-policy-makers-8th-edition-2017/property-rights-constitution [https://perma.cc/6UQV-6CX4].

69 Lothar Determann, *No One Owns Data*, 70 HASTINGS L.J. 1, 8–9 (Dec. 2018).

rights are limited by the rights of others—a person cannot freely use their property if it interferes with another person or their property.[70]

Property is defined as anything that is owned by a person or entity.[71] Generally, property is separated into three categories: (1) real property, (2) personal property, and (3) intellectual property ("IP").[72] Real property encompasses land and real estate, while physical property is all other tangible objects that aren't real property, such as clothes, cell phones, and cars.[73] The third category, intellectual property, refers to intangible property or expressed ideas.[74] IP includes categories such as books, songs, and inventions.[75] IP rights are governed by specific and distinct intellectual property laws: copyrights protect creative works of authorship, trademarks protect branding, and patents protect inventions.[76]

Certain ideas are owned by no one or everyone and are considered "public domain."[77] Categories of public domain include facts and information, works created by the U.S. Government, and familiar words, phrases, and symbols.[78] Works that were previously protected can also become public domain once the protection lapses.[79] Patent protections expire after twenty years and copyright protections expire seventy years after the author's death, at which point the work is no longer "owned" by the creator.[80] Conversely, trademarks do not expire after a set period of time.[81]

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70 *Id.* at 11.

71 *Property*, LAW.COM LEGAL DICTIONARY, https://dictionary.law.com/Default.aspx?selected=1645 [https://perma.cc/YCS3-9RNL].

72 Determann, *supra* note 69, at 8.

73 *Id.*

74 *Id.* at 8–10.

75 *Id*. at 10.

76 Emily Heaslip, *Guide to Understanding Common Law Intellectual Property*, U.S. CHAMBER OF COM. (Mar. 4, 2020), https://www.uschamber.com/co/start/strategy/common-law-intellectual-property [https://perma.cc/QN49-YRPV].

77 *Id.*

78 *Id.*; *see also* 17 U.S.C. § 105.

79 Heaslip, *supra* note 76; *see also* 17 U.S.C. § 105.

80 Heaslip, *supra* note 76.

81 *Id.*

2. Privacy Laws

Like property law, privacy law is grounded in the American Constitution and Bill of Rights, as well as common law.[82] The Constitution does not explicitly mention privacy rights, but the Supreme Court combined constitutional rights to create "zones of privacy," or areas of life that are free from intrusion.[83] These areas include the home, but also include areas we would expect to keep private, such as our daily habits or health decisions.[84]

As internet use and data sharing became more widespread, the public became increasingly concerned with violations of their privacy. The U.S. government banned several Chinese social media apps as a way to protect personal data and has considered banning even more, such as TikTok.[85] Americans feel that it is not possible to go through daily life without being tracked,[86] and that they have little control over how their data is being used to draw inferences about them.[87]

Despite these concerns, there is no overarching privacy regulation in the United States. However, the federal government has enacted regulations concerning specific aspects of privacy, such

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82 *See generally* Griswold v. Connecticut*,* 381 U.S. 479 (1965).

83 *See id.* at 484.

84 *See generally* Kyllo v. United States, 533 U.S. 27 (2001) (discussing common law privacy protections).

85 Ana Swanson, *Trump Bans Alipay and 7 Other Chinese Apps,* N.Y. TIMES (Jan. 5, 2021), https://www.nytimes.com/2021/01/05/technology/china-app-ban.html [https://perma.cc/FK3N-84A3]; Ana Swanson, *Trump Admin to Ban TikTok and WeChat from U.S. App Stores,* N.Y. TIMES (Sept. 18, 2020), https://www.nytimes.com/2020/09/18/business/trump-tik-tok-wechat-ban.html [https://perma.cc/3WYT-Z86R].

86 Brooke Auxier et al., *Americans and Privacy: Concerned, Confused, and Feeling Lack of Control over Their Personal Information*, PEW RES. CTR. (Nov. 15, 2019), https://www.pewresearch.org/internet/2019/11/15/americans-and-privacy-concerned-confused-and-feeling-lack-of-control-over-their-personal-information/ [https://perma.cc/7D23-SQFH].

87 Sandra Wachter & Brent Mittelstadt, *A Right to Reasonable Inferences: Re-Thinking Data Protection Law in the Age of Big Data and AI*, COLUM. BUS. L. REV. 1, 6–7 (2019) ("These methods can be used to nudge or manipulate us, or to make important decisions (e.g., loan or employment decisions) about us. The intuitive link between actions and perceptions is being eroded, leading to a loss of control over identity and how individuals are perceived by others. Concerns about algorithmic accountability are often actually concerns about the way in which these technologies draw privacy-invasive and non-verifiable inferences that cannot be predicted, understood, or refuted."). *Id.* at 4.

as the Children's Online Privacy Protection Act ("COPPA").[88] COPPA aims to regulate the information collected about children under the age of thirteen.[89] In 1998, legislators created the Act to reduce harms, such as online harassment and sexual predators, that can result from the use and collection of children's personal information.[90] COPPA requires websites directed toward children to give notice about what information is collected and how it is used.[91] The Federal Trade Commission is solely responsible for enforcing COPPA, and imposes fines on websites that violate the Act.[92]

Although it is enforced,[93] COPPA is widely criticized as ineffective.[94] Social media companies, such as Facebook, are especially criticized for "circumventing" COPPA.[95] While Facebook's privacy policy does not allow users under the age of thirteen, the platform does not take adequate action to restrict young users.[96] Even if they read the policy, children often create social media sites anyway by falsifying their birth year or just choosing to create an account.[97] Therefore, these websites are still collecting personal information from children. In addition to being criticized for simply not working, COPPA is also criticized as a burden on smaller businesses due to

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88 Children's Online Privacy Protection Act of 1998, Pub. L. No. 105-277, §§ 1301–1308, 112 Stat. 2681 (codified as amended at 15 U.S.C. §§ 6501–6506). Other examples include the Health Insurance Portability and Accounting Act ("HIPAA"), which controls the collection of our health information, the Gramm Leach Biley Act, which governs our personal information relating to banks and finance, and the Fair Credit Reporting Act, which governs the collection and use of credit data. Health Insurance Portability and Accounting Act (HIPAA), Pub. L. No. 104-191, 110 Stat. 1936 (codified as amended in scattered sections of 18, 26, 29, and 42 U.S.C.).

89 Lauren A. Matecki, Note, *Update: COPPA is Ineffective Legislation! Next Steps for Protecting Youth Privacy Rights in the Social Networking Era*, 5 NW. J.L. & SOC. POL'Y. 369, 370 (2010).

90 *See id.* at 369, 390.

91 15 U.S.C. § 6502 (b)(1)(A)(i)–(ii).

92 Matecki, *supra* note 89, at 376.

93 *See id.* at 382.

94 *See id.*

95 Shannon Finnegan, Note, *How Facebook Beat the Children's Online Privacy Protection Act: A Look into the Continued Ineffectiveness of COPPA and How to Hold Social Media Sites Accountable in the Future*, 50 SETON HALL L. REV. 827, 828 (2020).

96 *Id.*

97 Stephen Beemsterboer, *COPPA Killed the Video Star: How the YouTube Settlement Shows that COPPA Does More Harm than Good*, 25 ILL. BUS. L.J. 63, 68–69 (2020) (discussing "easily falsifiable age verification methods").

the legal costliness of compliance, and for failing to protect minors over thirteen.[98]

In the absence of effective federal privacy legislation, states have begun to address the privacy issue. As of 2019, at least twenty-five states have filed bills or drafts to implement privacy regulations.[99] In November 2020, California passed the California Privacy Rights Act ("CPRA").[100] The CPRA is an extension of the California Consumer Privacy Act of 2018 ("CCPA") and regulates the use of personal data.[101] The CPRA was enacted because the CCPA did not protect Californians' privacy in the way the legislature had hoped.[102] Californians for Consumer Privacy, sponsors of the CCPA, described that:

> [S]ince we passed CCPA, two things have happened: First, some of the world's largest companies have actively and explicitly prioritized weakening the law. Second, technological tools have evolved in ways that exploit a consumer's data with potentially dangerous consequences. We believe using a consumer's data in these ways is not only immoral, but threatens our democracy.[103]

The CPRA aims to give individuals the right to know, the right to say no, and the right to hold big corporations accountable.[104] This regulation covers how data is being used, gives individuals the ability to opt out of having their data collected, and creates a new government agency for the enforcement and compliance of privacy

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98 Matecki, *supra* note 89, at 382.

99 *2019 Consumer Data Privacy Regulation*, NCSL (Jan. 3, 2020), https://www.ncsl.org/research/telecommunications-and-information-technology/consumer-data-privacy.aspx [https://perma.cc/ZCP8-2C4C].

100 California Consumer Privacy Act, CAL. CIV. CODE §§ 1798.100–99.

101 Lisa Dick, *What is the CPRA vs the CCPA? And Why Does It Matter?*, DIGIT. EXPERIENCE AGENCY (Aug. 20, 2020), https://www.degdigital.com/insights/cpra-vs-ccpa-data-privacy/ [https://perma.cc/K4QP-5BL7].

102 *How Prop. 24 Strengthens Privacy Rights for Californians*, CALIFORNIANS FOR CONSUMER PRIV., https://www.caprivacy.org/your-privacy-rights/ [https://perma.cc/W2K6-YEJ3].

103 *Id.*

104 *Id*.

regulations.[105] The CPRA will impose fines on those who violate personal privacy, fining up to $7,500 per intentional violation or violation involving those under sixteen.[106]

While federal data regulation in the United States has been somewhat ineffective, the European Union adopted an all-encompassing data protection law known as the General Data Protection Regulation ("GDPR") in 2016.[107] The GDPR is likely the most expansive example of data and privacy protection. To protect the privacy of European citizens, the GDPR regulates the use, storage, disclosure, or any other use of personal information.[108] If data is classified as personal, or any information that can identify an individual, there must be a lawful basis to use that data.[109] These bases include consent, legal obligations, and public interest.[110] In the absence of a justified legal basis, the use of personal data is prohibited.[111]

The GDPR additionally provides EU citizens with data rights.[112] These rights allow European citizens to ask what information is collected about them and how it is used.[113] Europeans can also correct mistaken information, or have their data deleted from records completely.[114] This is in stark contrast to the United States, which does not provide its citizens such control.[115] The legislation also requires

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105 *Id.*

106 Cynthia Cole, Matthew R. Baker, & Katherine Burgess, *Move Over, CCPA: The California Privacy Rights Act Gets the Spotlight Now,* BLOOMBERG L. (Nov. 16, 2020, 4:00 AM), https://news.bloomberglaw.com/privacy-and-data-security/move-over-ccpa-the-california-privacy-rights-act-gets-the-spotlight-now [https://perma.cc/MNQ5-NVFQ].

107 GDPR, *supra* note 11.

108 *See id*. art. 4(2). Exceptions are that the GDPR does not apply to the use of personal data (1) in activity that falls outside the scope of EU law; (2) by EU nations carrying out foreign policy and national security objectives; (3) by an individual in the course of a purely personal; and (4) by those conducting criminal investigations and prosecutions. *Id*. art. 2(2).

109 *See* STEPHEN P. MULLIGAN ET AL., CONG. RSCH. SERV., DATA PROTECTION LAW: AN OVERVIEW 43 (Mar. 25, 2019).

110 *See id.*

111 *See id.*

112 GDPR, *supra* note 11, arts. 12–23.

113 *Id.* arts. 12–15.

114 *Id.* arts. 16–17.

115 *See* Vaidya Gullapalli, *The U.S. Has No "Right to be Forgotten." But One News Outlet Has Been Weighing the Costs of the Internet's Long Memory*, THE APPEAL (Nov. 6,

companies to actively protect personal data, such as requiring the implementation of a data protection officer.[116]

To ensure compliance, the GDPR imposes severe fines on violators. These fines apply to all types of business (and even individuals), and the amount of the fine varies with the size of the business.[117] The amount fined also depends on the severity of the violation, and regulators will consider factors such as the gravity and nature of the act, the company's intentions, and relevant previous infringements.[118] Less severe violations can be up to ten million euros, or two percent of the company's worldwide annual revenue.[119] A more serious violation can be double that: up to twenty million euros or four percent of the company's worldwide annual revenue.[120] Fines have been as small as twenty-eight euros for sending unwanted emails and as large as over twenty-two million euros for having inadequate security measures to prevent cyber-attacks.[121]

3. Tax Law

"In this world, nothing is certain except death and taxes."

– Benjamin Franklin

2019), https://theappeal.org/the-u-s-has-no-right-to-be-forgotten-but-one-news-outlet-has-been-weighing-the-costs-of-the-internets-long-memory/ [https://perma.cc/2N92-5SPD] (describing the lack of the "the right to be forgotten," or the right to delete your information from the internet, in the United States).

116 GDPR, *supra* note 11, arts. 37–39.

117 Ben Wolford, *What Are the GDPR Fines?*, GDPR EU, https://gdpr.eu/fines/ [https://perma.cc/6YPJ-YW6M].

118 *See id.*

119 *See id.*

120 *See id.*

121 In 2020, an organization was fined €28 when a customer updated their email address but continued to receive emails to the old address. *GDPR Enforcement Tracker,* CMS, *https://www.enforcementtracker.com/ETid-523* [https://perma.cc/XJZ9-ERR4]. The same year, British Airways was fined €22,046,000 for allowing a hacker website to take data from over 500,000 customers. The Information Commissioner found their inadequate data security violated the GDPR. *See GDPR Fines Tracker & Statistics*, PRIVACYAFFAIRS, https://www.privacyaffairs.com/gdpr-fines/ [https://perma.cc/HGW3-RN44].

Taxation is considered to be fundamental to our society.[122] The U.S. tax system employs various types of taxes, such as the corporate tax, personal income tax, property tax, federal tax, and state tax.[123] Taxes are needed to raise revenue for the public good, such as our public education, healthcare, and environmental projects.[124] In addition to needing taxes to fund our government and public works, taxes also serve the functions of redistribution and regulation.[125] The redistributive function aims to reduce the monetary inequality between the wealthiest and the poorest.[126] In developed countries, the personal income tax is viewed as the primary method of redistribution.[127] The regulatory function is seen as a way to impact private sector activities, and the corporate income tax was seen specifically as a way to regulate corporations.[128] The corporate tax was proposed by President William Howard Taft as a way to achieve, "supervisory control of corporations which may prevent a further abuse of power."[129]

In the early 1900s, the United States began adopting these regulatory corporate taxes to encourage or deter certain forms of corporate activity.[130] However, in 1974, the government introduced tax expenditures to encourage spending decisions, specifically for corporations and those with the funds to make investments.[131] This essentially means that some paid little to no taxes, so that they would have more money to spend and bring into the economy.[132] Since

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122 *A Taxing Problem: How to Ensure the Poor and Vulnerable Don't Shoulder the Cost of the COVID-19 Crisis*, UN NEWS (July 12, 2020), https://news.un.org/en/story/2020/07/1068111 [https://perma.cc/6CNX-ZN66].

123 *The Three Basic Tax Types,* TAX FOUND., https://taxfoundation.org/the-three-basic-tax-types/ [https://perma.cc/A8D9-FRTQ].

124 *See* Reuven S. Avi-Yonah, *The Three Goals of Taxation*, 60 TAX L. REV. 1, 3 (2006).

125 *See id.*

126 *See id.*

127 Richard M. Bird & Eric M. Zolt, *Redistribution via Taxation: The Limited Role of the Personal Income Tax in Developing Countries*, 52 UCLA L. REV. 1627, 1629 (2005).

128 Avi-Yonah, *supra* note 124, at 3, 22.

129 44 CONG. REC. 3,344 (daily ed. June 16, 1909) (statement of President Taft).

130 Avi-Yonah, *supra* note 124, at 22.

131 *Id.* at 24–25; William McBride, *A Brief History of Tax Expenditures*, TAX FOUND. (Aug. 22, 2013), https://taxfoundation.org/brief-history-tax-expenditures/ [https://perma.cc/2P8C-PCYA].

132 Avi-Yonah, *supra* note 124, at 23–24.

these tax expenditures mostly benefited the rich, they greatly decreased the effectiveness of the revenue and redistribution functions.[133] This led to numerous reforms to the tax code to close loopholes and reduce the large amount of tax avoidance seen by the wealthy,[134] which were generally ineffective because of new and emerging tax incentives.[135]

Some taxes are charged as a rate based upon a percentage.[136] This allows for the same tax percentage to be paid by everyone, such as a sales tax, but the dollar amount of tax increases as the purchase price increases.[137] These taxes can be progressive, such that the tax rate will increase as the taxable amount increases, or regressive, meaning the tax rate decreases as the taxable amount increases.[138] As opposed to being calculated as a percentage, specific taxes—or per unit taxes—are flat rates. Per unit taxes are a fixed amount per a quantity of good, independent of its actual price.[139] Per unit taxes

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133 *Id.* at 23.

134 *See* Tax Reform Act of 1969, Pub. L. No. 91-172, § 301, 83 Stat. 487, 580 (adopting the alternative minimum tax (AMT)). The AMT became a burden on the middle class. *See* Avi-Yonah, *supra* note 124, at 23.; *see also* Congressional Budget and Impoundment Control Act of 1974, Pub. L. No. 93-344, § 601, 88 Stat. 297, 323 (adopting a tax expenditure budget); *see generally* Tax Reform Act of 1986, Pub. L. No. 99-514, 100 Stat. 2085.

135 *See* Avi-Yonah, *supra* note 124, at 23 (referencing the American Jobs Creation Act of 2004 and the Energy Policy Act of 2005 as examples of ways tax incentives are created despite the "anti-tax expenditure movement"). Pub. L. No. 108-357, 118 Stat. 1418; Pub. L. No. 109-58, 119 Stat. 594.

136 *See* Alexander M. Hess, *Seven Ways Americans Pay Taxes*, USA TODAY (Jan. 4, 2014), https://www.usatoday.com/story/money/personalfinance/2014/01/04/taxes-americans-pay/4307825/ [https://perma.cc/95EA-GXWK]. Some examples include corporate and personal income taxes, sales taxes, and payroll taxes.

137 *See id*.

138 *Progressive Tax*, CORP. FIN. INST., https://corporatefinanceinstitute.com/resources/knowledge/accounting/progressive-tax-system/ [https://perma.cc/U72G-DBSV].

139 *Specific Tax*, ECONOMICSHELP, https://www.economicshelp.org/blog/glossary/specific-tax/ [https://perma.cc/75F5-QELM]. Current federal per unit taxes include items such as tobacco products, alcohol, and gasoline. *What Are the Major Federal Excise Taxes, and How Much Money Do They Raise?*, TAX POL'Y CTR., https://www.taxpolicycenter.org/briefing-book/what-are-major-federal-excise-taxes-and-how-much-money-do-they-raise [https://perma.cc/RY9R-3D57] [hereinafter *Major Federal Excise Taxes*]. The per unit tobacco tax is $1.01 per pack of cigarettes (the price of which ranges country-wide from about $5 to $13). *See Cigarette Prices by State*, FAIR REPS. (Jan. 17, 2020), https://fairreporters.net/health/prices-of-cigarettes-by-state/ [https://perma.cc/4SRH-

are often used to deter behavior and are considered to have a greatest effect on reducing the overall demand of a good.[140] A portion of the revenue from these taxes is often used to combat harms which the good creates.[141] For example, revenue from tobacco taxes is used to fund health insurance, as well as tobacco prevention programs.[142]

As of publication, the corporate tax is 21%, which is the lowest corporate tax rate since 1939.[143] It was reduced from 35% in 2017, and with this tax cut also came a provision which allowed global companies to not be taxed on foreign profits.[144] While the previous statutory tax rate was 35%, the effective tax rate of profitable Fortune 500 companies between 2008 and 2015 was actually 21.2% after exemptions.[145] In 2018, with the corporate tax already reduced to 21%, the most profitable companies averaged an 11% effective tax rate.[146] This average includes the profitable companies who paid a negative tax bill, such as Netflix and General Motors.[147]

FJ4E]. The per unit distilled spirits tax is $13.50 per proof gallon, and the per unit tax on gasoline is about $0.18 a gallon (the national average price of which is $2.39). *Id.*; Julia Kagan, *What is an Excise Tax?*, INVESTOPEDIA (Apr. 28, 2020), https://www.investopedia.com/terms/e/excisetax.asp [https://perma.cc/WY9A-N4HA].

140 *See* Julia Kagan, *Sin Tax*, INVESTOPEDIA (July 31, 2020), https://www.investopedia.com/terms/s/sin_tax.asp [https://perma.cc/Y9RJ-P5WE] (explaining how specific taxes are used as "sin taxes" on products like tobacco, alcohol, and gambling ventures); *Specific Tax*, *supra* note 139.

141 *What Are the Major Federal Excise Taxes, and How Much Money Do They Raise?*, TAXPOLICYCENTER.ORG, https://www.taxpolicycenter.org/briefing-book/what-are-major-federal-excise-taxes-and-how-much-money-do-they-raise [https://perma.cc/5QZ8-GGAR].

142 *Cigarette & Tobacco Taxes*, AMERICAN LUNG ASSOCIATION, https://www.lung.org/policy-advocacy/tobacco/tobacco-taxes [https://perma.cc/T3QP-6QDL].

143 Tax Cuts and Jobs Act, Pub. L. No. 115-97, § 13001; Kimberly Amadeo, *U.S. Corporate Income Tax Rate, Its History, and the Effective Rate*, THE BALANCE (Feb. 2, 2021), https://www.thebalance.com/corporate-income-tax-definition-history-effective-rate-3306024 [https://perma.cc/SJ42-ACZH].

144 Amadeo, *supra* note 143.

145 Matthew Johnston, *How Fortune 500 Companies Avoid Paying Taxes,* INVESTOPEDIA (Jan. 28, 2021), https://www.investopedia.com/news/how-fortune-500-companies-avoid-paying-income-tax/ [https://perma.cc/QT74-JW3R].

146 *Id.*

147 *See* Kathryn Kranhold, *You Paid Taxes. These Corporations Didn't.*, THE CENTER FOR PUBLIC INTEGRITY (Apr. 11, 2019), https://publicintegrity.org/inequality-poverty-opportunity/taxes/trumps-tax-cuts/you-paid-taxes-these-corporations-didnt/ [https://perma.cc/HFV4-L9ZV].

II. THE TIMES THEY ARE A-CHANGIN', THE LAWS STAY THE SAME

Data use has widespread effects on society, which are not always positive.[148] To combat this, the United States and several countries have employed their versions of solutions to the misuses of data.[149] However, these solutions are generally focused on privacy, and do not allow the public to be compensated for their contributions. This Part will elaborate on the ways our laws allow data to be taken freely and discuss the reasons individuals should be compensated for their data. Unregulated data use creates far-reaching societal harms, specifically in relation to corporate tax practices. While there are numerous approaches to data reform, none have been able to provide both data compensation and data privacy.

A. How Gaps in Our Current Law Allow Data to be a "Free Resource"

Property, privacy, and tax laws confer many benefits to the public, but compensation for data is not one of them. While the most straightforward solution would be requiring companies to pay individuals directly for their data,[150] that possibility is not as simple as

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148 *See* Joanna Redden, *Six Ways (and Counting) that Big Data Systems are Harming Society,* THECONVERSATION (Dec. 7, 2017), https://theconversation.com/six-ways-and-counting-that-big-data-systems-are-harming-society-88660 [https://perma.cc/DSZ5-77MS].

149 *See generally* Mulligan, *supra* note 109, which details some federal data protection laws, as well as California's measures for data security. Numerous countries impose criminal penalties for those who create false information online and some countries (and California) prosecute those who use automation to amplify it. Misuses of these penalties have already been seen in Iran, Russia, Saudi Arabia, and Tanzania, who have imposed these criminal charges on those spreading false information, but also on minorities, political nonconformists, and human rights defenders. SAMANTHA BRADSHAW, LISA-MARIA NEUDERT & PHILIP N. HOWARD, GOVERNMENT RESPONSES TO MALICIOUS USE OF SOCIAL MEDIA 4 (Anna Reynolds ed., 2018). Some countries, such as Italy, give internet users the ability to report false information and use government initiatives to monitor these complaints. Yasmeen Serhan, *Italy Scrambles to Fight Misinformation Ahead of Its Elections*, THE ATLANTIC (Feb. 24, 2018), https://www.theatlantic.com/international/archive/2018/02/europe-fake-news/551972/ [https://perma.cc/4D9G-3XTP].

150 Makena Kelly, *Andrew Yang Is Pushing Big Tech to Pay Users for Data*, THE VERGE (June 22, 2020), https://www.theverge.com/2020/6/22/21298919/andrew-yang-big-tech-data-dividend-project-facebook-google-ubi [https://perma.cc/52SV-55FE] (describing Yang's plan to create a "data dividend"). For criticism of this plan, see Will Rinehart,

one might think.[151] To sell the data, or to receive payment for data, individuals would have to own it. Although it is technically their data because they "created" it, our laws do not allow data to have a legal owner.[152] Intellectual property laws do not protect factual information, which is exactly what data is.[153] While people generate this information, they do not necessarily "create" it as defined by law, and property laws intentionally exclude data from their definitions.[154] Without these property rights, there is no legal right to sell data. Therefore, individuals do not have the legal standing to demand payment for its collection.

Privacy laws regulate the use of data and can prohibit companies from profiting from certain data types, but also fail to compensate the public for data that is collected.[155] Such laws do not directly create avenues to receive payment for information, nor is there currently an overarching privacy law that would provide compensation to the entire country. Further, privacy regulations do not extend to all data types, but focus on personal data. However, there is still value in engagement, behavioral, and attitudinal data. Therefore, even if privacy legislation contained ways to compensate the public, it would fail to do so for all of the data that society generates.

Tax laws further fail to compensate the public because there is no tax on data. Unlike other collected resources, which would be subject to a sales tax, data is not always sold.[156] Under U.S. laws, companies can freely collect information about all citizens. If there is no sale, a company does not have to pay a sales tax on the resource. Therefore, revenue is not being contributed back to society for the information that is taken from it—instead, it is merely used to create profits.

Andrew Yang's Plan to Pay for Your Data Doesn't Add Up, WIRED (July 16, 2020), https://www.wired.com/story/opinion-andrew-yangs-plan-to-pay-you-for-your-data-doesnt-add-up/ [https://perma.cc/24C3-DUHJ].

151 Kerry & Morris*, supra* note 10.

152 *See* Determann, *supra* note 69, at 26.

153 *See id.*

154 *See id.* at 42–43.

155 *See, e.g.*, California Consumer Privacy Act, CAL. CIV. CODE §§ 1798.145.

156 *See infra* notes 295–299 and accompanying text.

Tax expenditures on those profits also allow numerous companies to avoid the social responsibilities created by their relationship with consumers. The average person relies on large companies for their food, clothes, basic necessities, and most of their information.[157] Due to this reliance, our modern society expects a certain social responsibility to be imposed on these corporations, such that they contribute towards the betterment of society.[158] Companies have accepted this responsibility and not only act reasonably to ensure their customers are not harmed, but also donate profits to other social organizations.[159] Even so, the current trend of tax expenditures and deductions can be considered a corporate avoidance of their social responsibility. The largest corporations are paying taxes far below their statutory rate, and sometimes no taxes at all,[160] which is depriving our society of necessary funds and requiring individuals to make up the missing revenue. Unsurprisingly, the companies that avoid paying such taxes are often the same companies collecting our data without payment.[161]

B. Why Individuals Should Be Compensated for Their Data

"Nothing is free. Everything has to be paid for. For every profit in one thing, payment in some other thing."

– Ted Hughes

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[157] Note that since the Covid-19 pandemic, this reliance has only increased. The closing of small businesses has led to an even greater reliance on large companies, and these companies' profits have significantly increased while smaller companies have closed. For example, Amazon has reported a 70% increase in earnings in the last nine months, and 80% of S&P 500 companies have reported earnings that are larger than expected. Peter Eavis & Niraj Chokshi, *While the Pandemic Wrecked Some Businesses, Others Did Fine. Even Great*, CHI. TRIB. (Nov. 10, 2020), https://www.chicagotribune.com/coronavirus/sns-nyt-companies-profits-losses-coronavirus-20201110-4odk4jvnczbnnmtth5pc32vp6q-story.html [https://perma.cc/RT5N-TM8M].

[158] *See* Narotzki, *supra* note 12, at 184.

[159] *Id.*

[160] *See supra* notes 143–151 and accompanying text.

[161] For example, eleven "massive tech and transportation companies," such as Netflix and Amazon, paid no tax during 2018. Aaron Holmes, *From Amazon to GM, Here Are All the Major Tech and Transportation Companies Who Avoided Federal Income Taxes Last Year*, BUS. INSIDER (Nov. 24, 2019), https://www.businessinsider.com/tech-companies-dont-pay-federal-income-taxes-amazon-gm-2019-11 [https://perma.cc/FP8V-E3RL].

Businesses use data to understand consumers, so that they can keep them engaged with their platform or target them with advertisements.[162] This goal has led companies to incorrectly brand people as one thing: consumers. Despite this sentiment, society's data is some companies' most valuable resource.[163] Therefore, considering this crucial resource is harvested from individual actions, the general public acts as suppliers and laborers.[164]

Without the information that each person supplies to AI systems, the technology that companies rely on would cease to exist. Without analyzing millions of faces, Snapchat filters would not be possible.[165] Without tracking the speeds and locations of individuals, systems like Waze would not be able to function.[166] Practically every move, or lack of movement, is used to train AI, find new patterns, and make a profit. Every time someone makes a decision, they're essentially a laborer that creates and supplies data.

In the most recent century, it is generally understood that suppliers and laborers are paid for their contributions. This understanding is maintained regardless of the difficulty of the work, or the effort put into the labor. However, most empires were historically built on free labor.[167] The Egyptian, Roman, Ottoman, Russian, Spanish, and American empires all implemented slavery, serfdom, or some

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[162] Bridget Botelho, *Big Data*, TECHTARGET, https://searchdatamanagement.techtarget.com/definition/big-data [https://perma.cc/F63B-NC3B].

[163] *See Regulating the Internet Giants: The World's Most Valuable Resource Is No Longer Oil, but Data*, THE ECONOMIST (May 6, 2017), http://www.economist.com/news/leaders/21721656-data-economy-demands-new-approach-antitrust-rules-worlds-most-valuable-resource [https://perma.cc/62E4-5ZUV].

[164] *See* Eduardo Porter, *Your Data Is Crucial to a Robotic Age. Shouldn't You Be Paid for It?*, N.Y. TIMES (Mar. 6, 2018), https://www.nytimes.com/2018/03/06/business/economy/user-data-pay.html [https://perma.cc/7MX3-THZJ].

[165] *See, e.g.*, Jeremy Horwitz, *Snapchat's Time Machine Lens Uses AI to Age and De-age Selfies*, VENTUREBEAT (Nov. 21, 2019), https://venturebeat.com/2019/11/21/snapchats-time-machine-lens-uses-ai-to-age-and-de-age-selfies/ [https://perma.cc/HH2G-R4CS].

[166] *See* Rosalyn Link, *How Waze Uses AI to Navigate and Dominate the Game*, MEDIUM (Oct. 20, 2019), https://medium.com/marketing-right-now/how-waze-uses-ai-to-navigate-and-dominate-the-game-729e075a09b2 [https://perma.cc/X7F8-QQG3].

[167] *See A Brief History of Slavery*, NEW INTERNATIONALIST (Aug. 5, 2001), https://newint.org/features/2001/08/05/history [https://perma.cc/G2T9-DTFG].

other form of free labor to gain power.[168] Unfortunately, the technological empire is no different.

As described in a 2018 economics paper,[169] current problems with the data economy stem from not recognizing data as labor.[170] In the same way that previous empires exploited society, tech giants are exploiting society to create the "modern data slavery market."[171] This term encompasses the exploitation of free data labor, as well as the "enslavement" of the government and society to tech giants.[172] Critics of this theory argue that people access these platforms free of charge, and should not receive an additional benefit for data use.[173] American author and law professor Eric Posner, tech philosopher Jaron Lanier, and principal researcher at Microsoft Glen Weyl counter that free use of these platforms is not adequate payment when considering the immense profits generated from the use of our data.[174] These scholars also note that large companies are collecting information without compensating individuals, and then using that information to create AI which replaces them in the workforce.[175] Essentially, people are losing their jobs to robots they unknowingly created. Job loss creates financial harms, and there is a societal need to receive some benefit for our information. They argue that individuals are entitled to compensation for their data not only because they supply it, but also because it creates risks to their source of income.[176] As with conventional forced labor, society must not tolerate the modern exploited data laborer.

It should also be noted that prior to the introduction of AI, society expected to be compensated for supplying information. Market

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168 *Slavery in History*, THE HISTORY PRESS, https://www.thehistorypress.co.uk/articles/slavery-in-history/ [https://perma.cc/V96F-WXJY].

169 *See* Arrieta-Ibarra et al., *supra* note 24.

170 *Id.*

171 Matthew Pirkowski, *Data Slavery and Decentralized Emancipation*, MEDIUM (June 21, 2018), https://medium.com/swlh/data-slavery-and-decentralized-emancipation-ec9cc1265608 [https://perma.cc/7CWF-ELHX].

172 Pirkowski argues that society is "enslaved" to tech giants because the technology our data creates can influence our actions and purchase habits. *Id.*

173 *See* Porter, *supra* note 164.

174 *Id.*

175 *Id.*

176 *Id.*

research has been a popular tool for companies for over a century, and businesses historically invested substantial funds into obtaining consumer information.[177] Individuals were paid for their opinions or personal information because they were needed to obtain it. Since the introduction of AI, companies no longer have to ask about purchase behaviors or interests. Instead, businesses can circumvent this step by obtaining information directly from your bank or location.[178] Data is generally not seen as a resource because it is obtained without someone's knowledge or interference.[179] Even so, some companies are still willing to pay individuals hundreds of dollars an hour for the same information that larger companies take for free.[180] Although it is easier to obtain, our data is more valuable than ever.[181] The law should reflect this value and allow people to benefit from the wealth their data creates.

C. The Effects of Corporate Tax Avoidance

Tax research concerning corporate tax avoidance has become more active in the past decade.[182] Originally, tax expenditures were created to incentivize those with wealth to continue to spend and

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[177] Fred Phillips & Dan Merchant, *The US Consumer Panel Industry, 1940-2020: Lessons for the Age of Big Data*, AM. BUS. HIST. CTR. (July 4, 2020), https://americanbusinesshistory.org/the-us-consumer-panel-industry-1940-2000-lessons-for-the-age-of-big-data [https://perma.cc/P427-KG3W].

[178] *How Some Companies Are Profiting Off Consumer Data*, CNBC (Apr. 24, 2019), https://www.cnbc.com/video/2019/04/24/how-some-companies-are-profiting-off-of-consumer-data.html [https://perma.cc/84ZK-XY7L] (describing how satellites track individuals' movements, as well as downloaded apps, which give companies data on where consumers are shopping). The video also describes how banking transactional history data is obtained and sold to investors. *Id.*

[179] Alix Langone, *We Talked to Security Experts About How to Protect Your Online Data. Here's What They Said*, MONEY.COM, (April 17, 2018), https://money.com/how-to-protect-personal-information/ [https://perma.cc/KBX9-QMJY]

[180] *See, e.g.*, *How to Make $150 in an Hour with Focus Groups and Get a Free Coffee Too!*, GATHERING DREAMS (Aug. 3, 2020), https://gatheringdreams.com/online-focus-groups/ [https://perma.cc/2EJ4-UDDA]; Brittney, *20 Best Paid Online Focus Groups: Make $300/hr*, STRUGGLE.CO, https://struggle.co/paid-online-focus-groups/ [https://perma.cc/J3EE-VR38].

[181] *See supra* Section I.A.2.

[182] Michelle Hanlon & Shane Heitzman, *A Review of Tax Research*, 50 J. ACCT. & ECON. no. 2–3 127, 128 (2010) (describing corporate tax avoidance research as "young, but very active"). *See also* Martin Jacob, *A Note on Tax Research*, REVISTA CONTABILIDADE & FINANÇAS 339, 342 (2018).

invest.[183] The continuous addition of expenditures allowed corporate tax avoidances to become so large that the amounts have surpassed the entire budget of developing countries.[184] Currently, most companies' effective tax rate is nowhere near the statutory requirement after accounting for credits and exemptions.[185] For example, during the years 2008-2015, 20% of Fortune 500 companies avoided paying income taxes in at least one year, while their combined pretax income was $336 billion.[186]

The Institute on Taxation and Economic Policy found that in 2018, ninety-one of the most profitable companies paid no tax or a negative tax.[187] These companies include Amazon, who profited over $10 billion but paid an effective tax rate of negative 1%; and IBM, who profited $500 million and paid an effective tax rate of negative 68%.[188] In other words, IBM was expected to pay around $105 million in corporate taxes in 2018, but instead received $342 million.[189] In 2018 alone, corporations claimed $73.9 billion in tax subsidies.[190] This lowers tax revenue by $73.9 billion which must be repaid by individuals, including low-income families.[191]

A large percent of Fortune 500 companies are not contributing profits to the tax revenue,[192] which inhibits individuals from sharing in the wealth their data creates. According to Adobe's 2019 Chief Information Officer ("CIO") Perspectives Survey, eighty percent of

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183 Avi-Yonah, *supra* note 124, at 23.

184 Gio Wiederhold*, The Effect of Corporate Tax Avoidance on Society in* ECOLOGICAL, SOCIETAL, AND TECHNOLOGICAL RISKS AND THE FINANCIAL SECTOR 163, 163 (Thomas Walker et al. eds., 2020).

185 *See* Johnston, *supra* note 145.

186 *Id.*

187 Matthew Gardner, Lorena Roque, & Steve Wamhoff, *Corporate Tax Avoidance in the First Year of the Trump Tax Law*, INST. ON TAX'N AND ECON. POL'Y (Dec. 16, 2019), https://itep.org/corporate-tax-avoidance-in-the-first-year-of-the-trump-tax-law/ [https://perma.cc/33UW-R2UJ].

188 Kranhold, *supra* note 147. Another 15% of these companies paid effective tax rates that averaged about 2%. *Id.*

189 *See id.*

190 Lorena Roque, *Why Corporate Tax Matters*, INST. ON TAX'N AND ECON. POL'Y (Dec. 18, 2019), https://itep.org/why-corporate-tax-avoidance-matters/ [https://perma.cc/R6W8-EW5M].

191 *Id.*

192 *See id.*

U.S. CIOs planned to increase the use of artificial intelligence—and therefore data—in 2020.[193] Tech giants especially, and other large companies that utilize data, are avoiding taxes on that profit.[194] Current laws allow the untaxed harvesting of this valuable resource, and allow tax avoidance on its monetization.[195] Not only are members of society not compensated for their valuable information, but they are tasked with accounting for the tax which companies' avoid.[196]

When also considering the effect of data on the job market, there is even less capital being added to the tax revenue.[197] In 2017, the corporate tax rate was reduced from 35% to 21%.[198] With the use of artificial intelligence and technology, companies are employing fewer people and replacing them with robots, significantly reducing the number of taxable salaries.[199] This allows for companies to increase their profits through lowered taxes and fewer employees, causing individuals to face higher taxes and a lack of jobs.[200] Many have already called for a tax solution to this issue, such as Bill Gates' proposition to tax robots directly.[201]

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193 *See* Lance Lambert, *Exclusive: Why an Artificial Intelligence Wave Could Hit the Business World in 2020*, FORTUNE (Nov. 19, 2019), https://fortune.com/2019/11/19/artificial-intelligence-2020-cio-survey/ [https://perma.cc/T2W6-NLNF].

194 *See* Mark Sullivan, *These 8 Profitable Tech Giants Paid Less in Federal Taxes than You Did Last Year*, FAST CO. (Dec. 16, 2019), https://www.fastcompany.com/90443811/these-8-profitable-tech-giants-paid-less-in-federal-taxes-than-you-did-last-year [https://perma.cc/X95B-U5RR].

195 *See infra* notes 291–295 and accompanying text.

196 Roque, *supra* note 190. ("The ITEP report estimates that the federal government lost approximately $73.9 billion in potential revenue in 2018 alone due to tax breaks allowing corporations to pay less than the statutory rate of 21 percent. The cost falls on individuals and families, including low- and moderate-income families, who must pay in the form of reduced public services or higher taxes to make up for lost revenue.")

197 When companies have a negative tax rate, they not only fail to pay tax, but are actually given money from the government. *See* Gardner et al. *supra* note 187.

198 Tax Cuts and Jobs Act, Pub. L. No. 115-97, § 13001.

199 Porter, *supra* note 164.

200 *See* Sahadi, *infra* note 204; *see also* Eduardo Porter, *Don't Fight the Robots. Tax Them*, N.Y. TIMES (Feb. 23, 2019), https://www.nytimes.com/2019/02/23/Sunday-review/tax-artificial-intelligence.html [https://perma.cc/Z85A-GULJ]. It is estimated that half of jobs could be automated by 2055, which would reduce our tax revenue by billions of dollars each year. *Id.* It appears that "many companies invest in automation because the tax code encourages it, not because robots are more productive." *Id.*

201 To combat this, Bill Gates proposed taxing robots in a similar fashion as to how humans performing the same job would be taxed. Porter, *supra* note 200.

The reduction in corporate taxes, as well as the avoidances of these taxes through tax expenditures, has led to various societal harms.[202] When the wealthiest corporations pay no tax, our government loses hundreds of billions in revenue.[203] Former President Barack Obama explained that corporate tax avoidance can:

> [C]ome at the expense of middle class families because that lost revenue has to be made up somewhere . . . . [Less tax revenue] means that we're not investing as much as we should in schools, . . . in putting people back to work, . . . [and] creating more opportunities for our children.[204]

Gaps in our law have allowed extremely profitable companies to avoid paying taxes, or to be paid back funds from our government, while increasing burdens on our government and individuals.[205] These harms largely stem from avoiding tax on the profit which information generates.[206]

Corporate tax avoidance has also exacerbated wealth inequalities.[207] One goal of taxation is the redistribution of wealth.[208] Historically, income tax has been seen as a key tool to redistribute wealth.[209] Prior to World War II, income tax was applied to only the richest 10% of Americans, the funds of which were redistributed to everyone else.[210] Due to the implementation of tax exemptions, this redistribution function has been greatly hindered by large

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[202] Corporate tax avoidance leads to less federal revenue, lower-income families accounting for the missing revenue, and exacerbated wealth inequalities between both companies and individuals. *See infra* notes 203–238.

[203] *See* Porter, *supra* note 201.

[204] Jeanne Sahadi, *Obama: Corporate Tax Avoidance and the Middle Class*, CNN BUS. (Apr. 5, 2016), https://money.cnn.com/2016/04/05/news/economy/obama-tax-inversion/ [https://perma.cc/5G4W-LVJX].

[205] *See id.*; *See* Gardner et al., *supra* note 187.

[206] Since the wealthiest companies not only obtain data without payment but can also avoid taxes on the profit that information generates, a large portion of the harms from tax avoidance stem from the data industry. *See* Sullivan, *supra* note 194 for examples of tech companies avoiding taxes.

[207] Suresh Nallareddy et al., Working Paper 24598 http://www.nber.org/papers/w24598 (finding that corporate tax cuts since 2017 have increased wealth inequality).

[208] *See* Avi-Yonah, *supra* note 124, at 11.

[209] *See id.*

[210] *See id.*

corporations.[211] In basically every country, corporate wealth is possessed by the wealthiest people.[212] In the United States, 90% of corporate stock is owned by the richest 10%.[213] In 2016, the wealthiest 1% had more money than the rest of the world combined, and sixty-two people alone had half of humanity's wealth.[214] Our laws allow the wealthiest people to avoid taxes on this wealth, becoming richer as the average citizen fronts the cost.[215] This wealth is often generated using society's information, and yet the public is not paid for it—they are harmed by it.

Our current tax laws create not only a disparity between the wealthiest and poorest people, but between companies as well.[216] Some companies receive far greater tax breaks than others, but there does not appear to be any clear public policy reason.[217] Only twenty-five companies account for almost half of the total tax breaks in 2018, many of them being some of the wealthiest companies in the world.[218] Companies are often able to receive these tax expenditures because they are savvy at finding loopholes within the law, not because they are necessarily "deserving."[219] For example, many of the wealthy multi-national companies shift profits to foreign subsidiaries which are in countries with a lower tax rate.[220] An Oxfam study which analyzed the fifty biggest companies in the United States found that from 2008 to 2014, such companies used over 1,600 tax-haven subsidiaries to keep about $1.4 trillion offshore.[221] This allows for the larger, wealthier companies with more legal power to

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211 *See id.* at 23.

212 *Ten Reasons to Defend the Corporate Tax,* TAX JUST. NETWORK LTD., https://media.businesshumanrights.org/media/documents/files/documents/Ten_Reasons_Summary.pdf [https://perma.cc/6KLA-BPBR].

213 *Id.*

214 Ciara Linnane, *How Corporate Tax Avoidance is Hurting America and the Rest of the World,* MARKETWATCH (Apr. 14, 2016), https://www.marketwatch.com/story/how-corporate-tax-avoidance-is-hurting-america-and-the-rest-of-the-world-2016-04-14 [https://perma.cc/NL6Q-6VGG].

215 *See supra* Section I.B.3.

216 Roque, *supra* note 190.

217 *Id.*

218 *Id. See also* Kranhold, *supra* note 147.

219 *See* Sahadi, *supra* note 204.

220 Linnane, *supra* note 214.

221 *Id.*

earn more and contribute far less than other companies. The companies avoiding tax grow larger, while companies that contribute to the tax revenue are put at a disadvantage. Data giants have become so large that Google, Facebook, Apple, and Amazon are all currently involved in legal investigations over their monopolist practices.[222] Texas attorney general Ken Paxton described, "If the free market were a baseball game, Google positioned itself as the pitcher, the batter, and the umpire."[223]

The hardships of 2020 due to the Covid-19 pandemic have created an even greater need for tax revenue,[224] as well as an even greater disparity among companies.[225] The Covid-19 pandemic has resulted in a loss of jobs,[226] a loss of businesses,[227] and an overall decrease in consumption.[228] It is projected that state and local government revenues, including fees to hospitals and higher education,

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[222] David McCabe & Daisuke Wakabayashi, *10 States Accuse Google of Abusing Monopoly in Online Ads*, N.Y. TIMES (Dec. 16, 2020), https://www.nytimes.com/2020/12/16/technology/google-monopoly-antitrust.html [https://perma.cc/T5BY-B9VQ].

[223] *See id.*

[224] Jim Zarroli, *$3.1 Trillion: Pandemic Spending Drives the Federal Budget Deficit to a Record,* NPR, https://www.npr.org/sections/coronavirus-live-updates/2020/10/16/924582156/-3-1-trillion-pandemic-spending-drives-the-federal-budget-deficit-to-a-record [https://perma.cc/PR6S-MWPM]; Barb Rosewicz, et al., *Pandemic Drives Historic State Tax Revenue Drop*, PEW RESEARCH CENTER, https://www.pewtrusts.org/en/research-and-analysis/articles/2021/02/17/pandemic-drives-historic-state-tax-revenue-drop [https://perma.cc/7ZCW-FBL6].

[225] James Kwak, *The End of Small Business. Giant Corporations May Be the Only Survivors in the Post-Pandemic Economy*, WASHINGTON POST, (July 9, 2020), https://www.washingtonpost.com/outlook/2020/07/09/after-covid-19-giant-corporations-chains-may-be-only-ones-left/ [https://perma.cc/XEJ4-EBWH]. *See also*, Paul Roberts, *The Deepening Economic Divide: How the Pandemic Has Hurt Small Businesses,* THE SEATTLE TIMES, (Mar. 28, 2021), https://www.seattletimes.com/business/economy/the-deepening-economic-divide-how-the-pandemic-has-hurt-small-businesses/ [https://perma.cc/CRZ2-3D3N].

[226] Kim Parker et al., *Economic Fallout from Covid-19 Continues to Hit Lower-Income Americans the Hardest*, PEW RESEARCH CENTER, (Sept. 24, 2020), https://www.pewresearch.org/social-trends/2020/09/24/economic-fallout-from-covid-19-continues-to-hit-lower-income-americans-the-hardest/ [https://perma.cc/HEK7-AEHD].

[227] Anne Sraders & Lance Lambert, *Nearly 100,000 Establishments that Temporarily Shut Down Due to the Pandemic Are Now Out of Business*, FORTUNE, (Sept. 28, 2020), [https://perma.cc/X4H5-RYNT].

[228] *See* Thomas Mitterling et al., The Decline and Recovery of Consumer Spending in the U.S., BROOKINGS, (Dec. 14, 2020), https://www.brookings.edu/blog/future-development/2020/12/14/the-decline-and-recovery-of-consumer-spending-in-the-us/ [https://perma.cc/U64T-NQXH].

will decline by $189 billion in 2021 and $167 billion in 2022.[229] Historically, decreases to state and local government revenue are harmful to economic recovery, as their revenue funds approximately 13% of the total employment in the United States.[230] At the same time that many are struggling, some of the largest corporations have been thriving.[231] The closing of small businesses has led to an even greater reliance on large companies.[232] The profits of large companies have significantly increased, while smaller companies are shutting down.[233] For example, Amazon reported a 70% increase in earnings in the first nine months of the year, and 80% of S&P 500 companies reported earnings that are larger than expected.[234] As consumers are staying home and spending more time using internet

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[229] Louise Sheiner & Sophia Campbell, *How Much Is Covid-19 Hurting State and Local Revenues?*, BROOKINGS INST. (Sept. 24, 2020), https://www.brookings.edu/blog/up-front/2020/09/24/how-much-is-covid-19-hurting-state-and-local-revenues/ [https://perma.cc/FP3R-G2PA].

[230] *Id.*

[231] *See* Leticia Miranda, *A Tale of Two Pandemics: Big-Box Stores Rake in Record Profits While Small Businesses Fold*, NBC NEWS, (Aug. 20, 2020), https://www.nbcnews.com/business/consumer/tale-two-pandemics-big-box-stores-rake-record-profits-while-n1237464 [https://perma.cc/33GU-BZ4H]; *see also* Douglas MacMillan, et al., *American's Biggest Companies are Flourishing During the Pandemic and Putting Thousands of People Out of Work*, (Dec. 16, 2020), https://www.washingtonpost.com/graphics/2020/business/50-biggest-companies-coronavirus-layoffs/ [https://perma.cc/6AQV-NRW8] (explaining that although the "coronavirus pandemic devastated small businesses," 45 of the 50 most valuable publicly traded companies made a profit at the beginning of the pandemic). *Id.*

[232] For example, prior to the pandemic, entertainment sales were already shifting away from smaller movie theaters and concert halls towards a handful of tech companies (Google, Amazon, Netflix, and Disney). At the peak of business shutdowns in April of 2020, online streaming consumption rose 81%. James Kwak, *The End of Small Business. Giant Corporations May Be the Only Survivors in the Post-Pandemic Economy*, WASHINGTON POST, (July 9, 2020), https://www.washingtonpost.com/outlook/2020/07/09/after-covid-19-giant-corporations-chains-may-be-only-ones-left/ [https://perma.cc/B8SS-B35R].

[233] *See supra* note 231. At the same time that these large companies were profitable, over 400,000 small businesses had closed. Austan Goolsbee, *Big Companies Are Starting to Swallow the World*, N.Y. TIMES, (Sept. 30, 2020), https://www.nytimes.com/2020/09/30/business/big-companies-are-starting-to-swallow-the-world.html [https://perma.cc/25MF-BJN4]; Anjali Sundaram, *Yelp Data Shows 60% of Business Closures Due to the Coronavirus Pandemic are Now Permanent*, CNBC, (Sept. 16, 2020), https://www.cnbc.com/2020/09/16/yelp-data-shows-60percent-of-business-closures-due-to-the-coronavirus-pandemic-are-now-permanent.html [https://perma.cc/6X7C-PUC7].

[234] Eavis & Chokshi, *supra* note 157.

services, companies are using their data to increase their profits enormously.[235] The exploitation of data allows larger companies to gain much greater profits than smaller companies, and their tax avoidance allows them to retain that data profit.

Our current laws have allowed corporations to continue to collect our data and make an enormous profit from it. Corporations do not pay people for using their information and then avoid billions of dollars in taxes, retaining funds that could have been utilized for the education and public employment of those very people. Individuals, including low-income citizens, ultimately make up this revenue loss through their personal taxes.[236] Corporate tax avoidance has led to a great wealth disparity between both individuals and businesses while preventing the redistribution of the profit data creates.

D. Existing Ownership and Privacy Approaches to Data Reform

While many propose that corporations pay for the use of our data, there are varying ideas concerning how to make this possible.[237] One approach, proposed by Posner and Weyl, is to give people ownership rights of their data so that they can sell it or restrict its use.[238] These scholars argue that in the largest tech companies, the share of profit going to labor is less than 15%.[239] Posner and

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235 Douglas MacMillan et al., *American's Biggest Companies are Flourishing During the Pandemic and Putting Thousands of People Out of Work*, THE WASHINGTON POST (Dec. 16, 2020), https://www.washingtonpost.com/graphics/2020/business/50-biggest-companies-coronavirus-layoffs/ [https://perma.cc/V2W3-KGMR]; Sara Morrison, *The Year We Gave Up On Privacy*, VOX, (Dec. 23, 2020), https://www.vox.com/recode/22189727/2020-pandemic-ruined-digital-privacy [https://perma.cc/6NB6-JP7T]; Elizabeth Lopatto*, In the Pandemic Economy, Tech Companies Are Raking It In*, THE VERGE, (July 30, 2020), https://www.theverge.com/2020/7/30/21348652/pandemic-earnings-antitrust-google-facebook-apple-amazon [https://perma.cc/AQ7K-UQLZ].

236 *See* Sahadi, *supra* note 204; *see also* Chye-Ching Huang & Brandon DeBot, *Corporate Tax Cuts Skew to Shareholders and CEOs, Not Workers as Administration Claims*, CBPP, (Aug. 16, 2017), https://www.cbpp.org/research/federal-tax/corporate-tax-cuts-skew-to-shareholders-and-ceos-not-workers-as-administration [https://perma.cc/HKX7-FFAH].

237 *See, e.g.*, Giulio Bonasera, *Should Consumers Be Able to Sell Their Own Personal Data?*, WALL ST. J. (Oct. 13, 2019), https://www.wsj.com/articles/should-consumers-be-able-to-sell-their-own-personal-data-11570971600 [https://perma.cc/5QF7-PBQV]; *see also* Arrieta-Ibarra et al., *supra* note 24; Porter, *supra* note 164.

238 Bonasera, *supra* note 237.

239 *See* Porter, *supra* note 164.

Weyl also reason this is attributed to most companies exploiting free labor through the data market.[240] To counter this, they argue that individuals should be paid directly when their data is collected and when that data is used to train robots.[241] They recommend that data be treated as labor, as opposed to capital, which would create "data jobs" and allow data laborers to be paid for their information.[242] Their "data as labor" paradigm relies on individuals having ownership of their data, so that the individual may benefit from their labor.[243]

Another ownership-centered approach is to compensate individuals through dividends. Andrew Yang, a New York City 2021 Mayoral Candidate, released the Data Dividend Project in 2020, which acts to treat data privacy rights like property rights.[244] The project requires individuals to provide their e-mail addresses and match them to platforms profiting from their data.[245] Then, individuals would receive data-as-property rights through privacy legislation such as the CPRA, which would allow them to be paid for the information they supply. Yang's vision is to eventually have profits directly deposited into PayPal accounts.[246]

Alternative solutions to data misuse are driven by the privacy approach, which bans the use of certain types of data.[247] Some privacy approaches seek to prohibit the use of certain technologies, such as facial recognition.[248] Other legislative approaches seek to prohibit the use of certain data types, such as the GDPR and CPRA.[249] These solutions are framed in terms of human privacy rights—that people have the right to know and control what happens with their information.[250] Proponents of increased privacy state that

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240 *Id.*
241 *Id.*
242 Arrieta-Ibarra, et al., *supra* note 24.
243 *Id.*
244 *See* Kelly, *supra* note 150. For criticism of this plan, see Rinehart, *supra* note 150.
245 *See* Kelly, *supra* note 150.
246 *Id.*
247 *See supra* Section I.B.2.
248 *See, e.g.*, Lindsey Barrett, *Ban Facial Recognition Technologies for Children—And for Everyone Else,* 26 B.U. J. SCI. & TECH. L. 223 (2020).
249 *See supra* Section I.B.2.
250 *See id.*

"[t]he current U.S. data privacy regime, premised largely upon voluntary industry self-regulation, is a failure."[251] These advocates call for solutions that generally focus on the benefit of privacy rights, as opposed to a monetary benefit.

III. THE GAP FILLER: A CORPORATE TAX ON DATA COLLECTION

The law has the ability to deter or encourage specific behavior, but it also shapes our social norms.[252] Our current laws, or lack thereof, have allowed the outright takings and misuses of our personal information to become a normal part of our society. Data has become the most valuable resource in the world, and yet its suppliers continue to be exploited. This Part will propose a corporate data tax, which acts to mitigate the harms of data collection and tax avoidance. Data tax revenue would "pay back" data suppliers by funding public works, while paving the road to greater federal privacy regulation.

A. A Tax on Big Data

This Note proposes the implementation of a per unit tax on the amount of data collected in order to "compensate" society for the data they supply. Based upon rationales behind varying per unit taxes[253] and recent rates of data collection,[254] this Note proposes a

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[251] *Public Interest Privacy Legislation Principles*, NEW AM., https://newamericadotorg.s3.amazonaws.com/documents/Public_Interest_Privacy_Principles.pdf [https://perma.cc/YT4V-N5SR]; *see also* Allie Gottlieb, *Persuading for Privacy*, THE REG. REV. (Mar. 19, 2020), https://www.theregreview.org/2020/03/19/gottlieb-persuading-privacy/ [https://perma.cc/B859-3RQS].

[252] *See* Kitty Richards, *An Expressive Theory of Tax*, 27 CORNELL J.L. & PUB. POL'Y 301, 305 (2017).

[253] *See infra* notes 261–264 and accompanying text.

[254] Based on information concerning data collection from 2018, it is estimated that over 2.5 quintillion bytes (2,500,000,000,000,000,000 bytes) of data are collected daily from each person, amounting to a worth of approximately $1,000 per person per year. *See supra* notes 63–66. From this we calculate that a year's worth of data–approximately 912.5 quintillion bytes –is valued at $1,000, if not more. (912.5 quintillion bytes/year is found by multiplying 2.5 quintillion bytes/day by 365 days).

data tax rate of $0.20 for every quintillion bytes.[255] This rate would apply to all types of data collected. Since imposing this tax on individuals would contradict its purpose, the tax on data should be applied as solely a corporate tax. The data tax would only be applicable to large corporations and their subsidiaries, defined by the Code of Federal Regulations as corporations with a taxable income of at least one million dollars.[256] In order to prevent current forms of tax avoidance, this data tax should not qualify for expenditures. Considering the constant changes to the market, the tax should be collected quarterly and reevaluated yearly to adjust for inflation[257] or increased value. Additionally, a portion of the tax revenue would be used to create an agency or committee of experts tasked with these evaluations.

The suggested tax rate of $0.20 was calculated using information about data's value, as well as rates of current per unit taxes. Federal per unit taxes on tobacco and alcohol are substantial because they are implemented to raise revenue as well as deter certain behavior.[258] For example, the federal tobacco tax was originally implemented to bring in government revenue because tobacco was such a widely-used commodity.[259] Over time, the tax was increased to deter

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[255] A $0.20 specific for every quintillion bytes of acquired data would create a substantial amount of revenue. This tax would amount to approximately $180 for a year's worth of each individual's data. ($180 is found by multiplying 912.5 quintillion bytes/year by $.20. This is less than twenty percent of the $1,000 profit which the data generates). Applying this to the Unites States and assuming a population of 300 million people, over $54 billion dollars would be added to the yearly tax revenue.

[256] 26 C.F.R. § 1.6655-4.

[257] Current per unit taxes, such as tobacco taxes, are criticized for not adjusting their flat rate for inflation. *See* INSTITUTE OF MEDICINE (US) COMMITTEE ON PREVENTING NICOTINE ADDICTION IN CHILDREN AND YOUTHS, GROWING UP TOBACCO FREE: PREVENTING NICOTINE ADDICTION IN CHILDREN AND YOUTHS 180 (Barbara S. Lynch & Richard J. Bonnie eds., 1994), available at https://www.ncbi.nlm.nih.gov/books/NBK236763/pdf/Bookshelf_NBK236763.pdf [https://perma.cc/CL8U-5S2N] (noting the primary reason for the declining revenues is the failure of the federal government to adjust cigarette tax rates to keep pace with inflation).

[258] *Id.* at 177.

[259] Taxes have been part of the federal system since the Civil War. *Id. at 177–78;* INSTITUTE OF MEDICINE, ENDING THE TOBACCO PROBLEM: A BLUEPRINT FOR THE NATION, 41–44 (The Nat'l Academies Press, 2007) https://www.nap.edu/read/11795/chapter/4 [https://perma.cc/9RCH-68MS].

the use of tobacco products.[260] The current tobacco tax is $1.01 per pack of cigarettes, which have a national average cost of $5.51.[261] The tobacco tax has comparable goals to this data tax, and was therefore used as a guideline to calculate an appropriate data tax rate of $0.20 per quintillion bytes.

However, this proposed tax rate is based upon data from previous years. More research must be done to accurately determine the amount of data companies currently collect, and what that data is worth, before implementing an exact amount. When calculating the data tax rate, the legislature should evaluate the main goals of the data tax. This tax is aimed to deter the over-taking of data, as well as (mainly) compensate the public for the constant use of their data. Therefore, the rate should be high enough to total a significant amount of data profits, but low enough to avoid an undue burden. This Note suggests a rate of $0.20/quintillion bytes to data collected, assuming that a quintillion bytes is worth approximately $1.10.[262] If data is worth more than the estimated amount, this Note recommends the rate be adjusted proportionally. Further, since technology is constantly changing, which constantly changes the amount of data taken and the value of that information, the per unit tax amount should be reassessed yearly.

The data tax should only apply to large companies. If the same tax is imposed on all companies collecting our data—which would include essentially any company that wants to remain competitive—the tax will overburden smaller companies. This would place the most harm on companies that are unlikely to be significantly profiting from our data, while benefiting the larger companies by possibly eliminating their competition.[263] The data tax should also apply to

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[260] *Id.*

[261] FAIR REPS., *supra* note 139 and accompanying text; *see also* Kagan, *supra* note 139 and accompanying text.

[262] Estimating that 912.5 quintillion bytes is worth $1000, this Note calculated that one quintillion bytes is worth $1.10.

[263] Smaller companies that play a lesser role in data exploitation can be the most negatively impacted by emerging regulations. *See, e.g.*, Ivana Kottasova, *These Companies Are Getting Killed by the GDPR*, CNN BUS. (May 11, 2018), https://money.cnn.com/2018/05/11/technology/gdpr-tech-companies-losers/index.html [https://perma.cc/5EC7-5XFW] ("Smaller companies that do not have the same resources are struggling" to meet the demands of the GDPR.). *Id.*

all large companies and all data types, regardless of the business. The tax is not limited to tech companies because data use is not limited to tech companies. Since the tax is calculated based on the amount of data collected, large companies that do not collect data will not be affected. Similarly, this tax extends to all data types, as opposed to the privacy approach which only addresses personal data. Data suppliers create the information these companies collect and should be compensated for all of that data. Whether that data may identify the supplier is immaterial to the labor put in and is therefore immaterial to this tax.

Similar to other federal per unit taxes,[264] this Note recommends the specific data tax be collected on a quarterly basis. The U.S. Treasury should implement a group to collect the data tax, just as federal alcohol and tobacco taxes are collected by the Alcohol and Tobacco Tax and Trade Bureau of the U.S. Treasury Department.[265] These funds are then put into a general fund or trusts to be spent in relation to what is taxed.[266] Typically, forty percent is added to a general fund and sixty percent is added to the trust.[267] In this case, a portion of the revenue in trust would fund the salaries of those who collect the new tax, reevaluate the tax yearly, as well as monitor data use to ensure compliance. The fund may also be used to create privacy initiatives.

Individuals want to receive a benefit for the use of their data but are currently unable to sell it or receive payment on an individual basis. Although the U.S. legal landscape does not provide avenues to be paid directly for data, it does provide inspiration for the data tax solution. The three core functions of tax—the revenue, redistributive, and regulatory functions—offer the optimal solution to the lack of payment for data. Individuals are unable to charge companies directly for taking their data, but tax revenue would indirectly benefit each individual. Taxes from the collection of data would

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[264] Specific excise taxes are collected on a quarterly basis. *See Excise Tax*, I.R.S. (Dec. 1, 2020), https://www.irs.gov/businesses/small-businesses-self-employed/excise-tax [https://perma.cc/UTV2-MJPE].

[265] *See Major Federal Excise Taxes*, *supra* note 139.

[266] *An Overview of Excise Tax*, I.R.S. (Oct. 7, 2020), https://www.irs.gov/newsroom/an-overview-of-excise-tax [https://perma.cc/GXE6-DH6T].

[267] *See Major Federal Excise Taxes*, *supra* note 139.

benefit everyday life by improving aspects such as community aid, parks, and housing. The tax would also allow money to be redistributed from companies profiting billions from the use of data back to the people from whom the data was generated. Lastly, and perhaps most influentially in the long term, the tax would regulate data collection by supervising an "abuse of power."[268]

B. Benefits, Future Directions, and Possible Drawbacks

Data generates immense value, but the public is unable to share in the profits that they help create. This has led to the exploitation of people, as well as increased wealth disparities. A tax imposed on large corporations on the amount of data collected would alleviate these harms while additionally curbing corporate tax avoidance. This tax would benefit individuals by contributing to the country's revenue, redistributing data profits back to the people who supplied the information. This redistribution would compensate exploited data suppliers and laborers by improving their streets, parks, education, and police, while alleviating the need for federal tax revenue. This tax will additionally benefit society by monitoring and regulating the use of information.

Aiming this tax at larger companies would also help strengthen the revenue and redistribution functions that were hindered by tax expenditures. Tax expenditures mainly aid the richest corporations in their tax avoidance, which not only decreases large amounts of tax revenue that would come from the wealthiest businesses, but also allows a greater inequality to be created.[269] A tax on large corporations addresses both of these issues while also focusing on the biggest players causing such harm.

One hardship of a new tax is the likelihood of subsequent exemptions to the largest companies.[270] This data tax is intended to target the exact companies that are likely to avoid it. Exemptions would contradict the purpose of the tax: that the wealthiest players—

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268 44 CONG. REC. 3,344 (daily ed. June 16, 1909) (statement of President Taft).

269 *See* Avi-Yonah, *supra* note 124, at 19.

270 Previous tax reform bills intended to "close loopholes" were followed by the introduction of new tax exemptions. This Note assumes that future tax legislation will follow this trend. *See id.* at 23.

which are generally the companies harvesting the most data—contribute to the benefit of society. If the same companies could continue to avoid this tax, it would place a greater burden on companies that do not qualify for exemptions. This would exacerbate the current problems surrounding corporate competition,[271] as well as hinder targeted funds from being redistributed to the public. In order for this tax to be effective, and truly benefit society, the legislature must anticipate these circumventions and create a tax which the largest companies will not avoid. To combat the issue of further corporate tax avoidance, this Note recommends the data tax code disqualifies it from exemptions or clearly enumerate the exemptions which may apply. Such provisions should also seek to hinder a global company's ability to avoid taxes through foreign subsidiaries.[272]

Prior to the widespread use of AI, members of society expected their privacy to be respected and to be paid if they were sharing their information. Although a tax on data collection would uphold this longstanding social norm, it is not a solution which will adequately deter the collection of data nor protect our privacy. The tax would simply draw revenue from the amount of data collected, but it would not protect citizens from the negative effects of AI inferences and the extreme invasions to our privacy.[273] Even so, this tax, as well as other privacy proposals, will shift our social norms toward having greater concern about our data. It is hopeful that new protections to our privacy will be implemented as the demands for them increase.

A further benefit may be seen if this tax was coupled with stronger privacy laws. While privacy laws are not the correct solution to the issue of compensation, they are a crucial solution to misuses of our data. Similar to California, which has used the CPRA to create a new agency to regulate privacy, our government can use this additional revenue to create a department which aims to protect the privacy of its citizens. Such a group can address the exploitation of our personal data, monitor inferences, and allow individuals to correct false information, and perhaps be used to stop foreign

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271 *See* McCabe & Wakabayashi, *supra* note 222.

272 *See* Johnston, *supra* note 145.

273 *See* Wlosik, *supra* note 60. In one example, a data broker sold information concerning rape victims, alcoholics, and erectile dysfunction sufferers to advertisers. Their contact information was sold for $79 per list of 1,000 people. *Id.*

interferences in our information, such as during elections. This group would also monitor where companies are transferring this information, so that individuals have a better understanding of what data is collected about them. An agency can also promulgate regulations that protect citizens from being targeted based upon categories such as their race, victimhood, addictions, or diseases.[274] These regulations can also impose fines if broken, or perhaps intertwine with the tax law to increase the tax amount for violators.

Over time, the combination of a tax and privacy regulations may lead to a greater decrease in our data collection and transfer than would be possible from each method individually. Funds from the data tax can be used to improve internet privacy, in ways such as countering identity theft or educating the public on internet safety, all of which would satisfy a relatively new public need.[275] As companies continue to increase the amount of data they collect, people's fears also increase. Revenue collected from a tax on big data can be put towards data protection and awareness, benefitting society by calming these fears.

A corporate tax may also lead to an eventual decrease in our individual taxes. Tax expenditures allow many large corporations to pay practically, if not literally, none of the 21% they are expected to contribute.[276] This amounts to billions of dollars yearly that are not being contributed to our public works, which needs to be supplemented by individuals.[277] Taxing large corporations on the amount of data they collect will create a large increase in tax revenue, which may make it feasible to lower our individual tax rate.

In addition to decreasing our taxes, the tax may decrease the overall amount of data collected. Currently, large sanctions are not enough to deter companies from taking our personal data, so a simple tax may have no effect. However, these sanctions are imposed based on the size of the company, but not also the amount of data. A tax proportional to the amount of data may incentivize companies to prioritize data, instead of collecting everything and anything. This

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274 *See id.*

275 *See* Madsbjerg, *supra* note 65.

276 *See* Kranhold, *supra* note 147.

277 *See* Sahadi, *supra* note 204.

prioritization may lead to a decrease in the amount collected. Even if this decrease is minimal, it is a step in the right direction.

Imposing a corporate tax on large companies that is proportional to the amount of data collected will indirectly benefit each individual by directly benefitting society. This tax would aim to monitor how much of our data is being collected by "data monarchs."[278] This regulation gives individuals an understanding that their legislature acknowledges their data concerns, while allowing individuals to confer a benefit from its use. Currently, our personal information is being exploited, and its use is causing disparities in wealth as well as the loss of jobs. Citizens are calling for legislation that protects them and regulates the use of our data. A tax on large corporations for the collection of our data is a first step to answering these calls and would allow society to benefit from the use of their data while leading to improvements in how data is regulated.

C. Comparisons to Alternative Approaches

The rationales behind ownership and privacy approaches to data rights, as well as the shortfalls, have inspired this data tax solution. While these approaches would bring society numerous benefits, the tax solution is most appropriate to curb the overarching harms of data use. Firstly, ownership approaches are inappropriate because they require data property rights. For instance, Posner and Weyl posit that data should be treated as labor, and individuals should have control of their data supply. This Note agrees with the rationale these scholars present, but it is not feasible under our current property laws for individuals to directly own and sell their data. Our current intellectual property laws do not extend to factual information. Implementing this type of ownership solution requires the disruption of our basic IP laws. Conversely, a data tax solution is similar in rationale and approach to current per unit taxes and could be implemented without changing foundational laws.

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[278] Valentina Powell, *We Don't Want to Sell Our Data, We Want Data Rights!*, PRIV. INT'L (Feb. 6, 2019), https://privacyinternational.org/news-analysis/2683/we-dont-want-sell-our-data-we-want-data-rights [https://perma.cc/T4MP-TEXX].

Another ownership approach also aims to bring consumers compensation through "dividends."[279] Andrew Yang, as well as Governor Gavin Newsom of California, called for a "digital dividend," and it seems that other states are also looking to introduce similar bills to compensate users for their data.[280] Even the Senate Banking Committee has discussed forcing platforms to pay users, but all of these ownership approaches are "sure to fail" because their implementation would require companies to completely change their business model. Additionally, there is not a set price for data to appropriate these dividends.[281] This approach is criticized for not having the true ability to benefit the public, but also because it promotes "the extractive and abusive practice by tech companies."[282] If people are paid directly for supplying data, it incentivizes users to keep supplying it. A data tax solution disincentivizes data collection, while also benefiting the public as a whole.

Privacy approaches, such as implementing more comprehensive privacy legislation, will also fail to monetarily compensate the public. In fact, privacy legislation may even have an opposite effect. Individuals use most internet services free of charge, but it's not exactly "free."[283] Individuals pay to use websites and apps with their data.[284] If privacy regulations prohibit such data collection, providers will lose the profits they made from the data.[285] This will likely cause companies to shift their business models; they will begin to

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279 *See* Section I.B.1; Rinehart, *supra* note 150.

280 Jazmine Ulloa, *Newsom Wants Companies Collecting Personal Data to Share the Wealth with Californians*, L.A. TIMES (May 5, 2019), https://www.latimes.com/politics/la-pol-ca-gavin-newsom-california-data-dividend-20190505-story.html [https://perma.cc/8ZR7-HLT5]; Liz Farmer, *Should Big Tech Be Taxed for Using Our Data*?, GOVERNING (May 3, 2019), https://www.governing.com/week-in-finance/gov-tech-companies-tax-data-states.html [https://perma.cc/ZUA9-DWDP]. *See also* Claudia Biancotti, *Should Internet Companies Be Taxed for Profiting from Private Data?*, PETERSON INST. FOR INT'L ECON. (Mar. 1, 2019), https://www.piie.com/blogs/realtime-economic-issues-watch/should-internet-companies-be-taxed-profiting-private-data [https://perma.cc/B69Y-YR4Q].

281 Biancotti, *supra* note 280.

282 Farmer, *supra* note 280.

283 *See* Larry Downes, *GDPR and the End of the Internet's Grand Bargain*, HARV. BUS. REV. (Apr. 9, 2018), https://hbr.org/2018/04/gdpr-and-the-end-of-the-internets-grand-bargain [https://perma.cc/U27C-484L].

284 *See id.*

285 *See id.*

charge the public to access their websites or download their app.[286] If that is the case, individuals will be forced to pay to use the platforms, and still not be paid for their data supply.

Unlike privacy solutions—such as the CPRA, GDPR, and criminal penalties for violations to privacy[287]—a tax does not impose sanctions or punishments for the use of our data. This can create a better relationship between the corporations, the government, and the individuals. Sanctions alert the public that there has been wrongdoing and raises suspicions of corporations, but do not completely stop the use of our personal data or compensate society. A tax recognizes that the use of our personal data is allowed, which is preferable to corporations because it does not seek to punish specific companies. The tax also allows the public to receive a benefit in ways that sanctions do not. However, despite its differences, the tax solution incorporates the rationales of the ownership and privacy solutions. Similar to the ownership solution, a tax allows the public to be compensated for their data, while using the principles of privacy law to focus on the regulation of our information.

Although we value our privacy, we also value the benefits of data that have become an integral part of our everyday lives.[288] This solution aims to allow the possibility of greater data benefits, without encouraging the excessive takings and invasions to our privacy. A specific tax on the amount of data taken will create this balance of incentives. This tax tells those collecting our data that their actions are being regulated and monitored, while also telling the public that its use is benefitting the society we live in.

A data tax would also bring a greater benefit than alternative tax increases because it addresses current social issues. Laws have the ability to shape and define a society's values.[289] This is seen throughout practically every area of the law, whether we consider the varying penalties for different crimes based upon what our

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286 *See id.*

287 *See supra* Section I.B.2.

288 Ilija Mihajlovic, *How Artificial Intelligence Is Impacting Everyday Lives*, TOWARDS DATA SCI. (June 13, 2019), https://towardsdatascience.com/how-artificial-intelligence-is-impacting-our-everyday-lives-eae3b63379e1 [https://perma.cc/WJ6V-TL9Y].

289 *See generally* Richards, *supra* note 252.

society has decided is immoral, or the protections awarded to our freedoms based on what our society has decided to be our fundamental rights. It is argued that tax scholarship is often filled with ineffectual incentives because it fails to consider this crucial aspect of the lawmaking process—social meaning.[290]

Considering this social meaning, a data tax is a preferable solution to simply increasing the corporate tax. Only increasing the corporate tax would incentivize companies to incorporate in other countries with a lower tax rate or continue to avoid the large tax through exemptions.[291] A regular tax increase would also fail to compensate the public directly for their data, nor would it target avoided data profits. Further, a tax on the amount of data collected is an improved solution to a tax on the sale of data. Currently, there is no market price for data, and data does not have a specific value.[292] The data's value is based upon how companies compile the data, and how much others are willing to pay for it.[293] The data is also not always "sold," but sometimes shared with advertisers in less direct ways, such as when Google allows third party companies to connect their own tracking cookies to Google's.[294]

Additionally, a sales tax on data would not cover data that is collected and used to train artificial intelligence or improve a business strategy but is not then sold to others.[295] Although companies are still using this data to make a profit, they are not selling specific sets of data, and a sales tax does not apply to such transactions. This would allow for companies to circumvent this tax by avoiding an actual "sale."[296] It would also allow for larger companies, who may

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[290] *Id.* at 303. It should be noted that some taxes have social meaning, such as consumption taxes on tobacco and alcohol, which have the purpose of dissuading their use. Avi-Yonah, *supra* note 124, at 24.

[291] *See* Johnston, *supra* note 145.

[292] Adam. B. Thimmesch, *Transacting in Data: Tax, Privacy, and the New Economy*, 94 DENV. L. REV 145, 174 (2016).

[293] *See* Noam Kolt, *Return on Data: Personalizing Consumer Guidance in Data Exchange*, 38 YALE L. & POL'Y REV. 77, 91 (2019).

[294] *See* Cyphers, *supra* note 8.

[295] Sales tax only applies to the sale of goods and services. Julia Kagan, *Sales Tax Definition*, INVESTOPEDIA, (May 31, 2020), https://www.investopedia.com/terms/s/salestax.asp [https://perma.cc/H643-G9YA].

[296] *See* Cyphers, *supra* note 8.

be able to charge less for data than smaller companies, to continue to be taxed less. Creating a new tax on the *amount* of data collected would allow for a greater benefit to reach society because it would not be subject to the same avoidances as the current corporate tax. Further, it would bring in revenue from all of the data collected and used. Both an increased corporate tax and a sales tax would fail to truly benefit data suppliers. Therefore, while other changes to our tax law may increase revenue or give benefit to the public, a corporate tax on the amount of data collected is best suited to achieve this goal.

Taxation is not only the most favorable solution from the point of view of the data suppliers, but also from the point of view of the legislature. It is not currently possible to expand our ownership rights to be able to transfer our private data, or to use data privacy regulation to receive an individual monetary benefit. However, it is feasible to quantify the amount of data collected and impose a tax on its collection as if it was any other resource.

Opponents of a new tax may argue that an increase in corporate taxes would be detrimental to the economy. However, the Economic Policy Institute found that economic growth since the 1950s has actually been stronger when corporate tax rates were higher.[297] The study found that lowering corporate tax rates would not spur economic growth, nor is there any evidence that higher corporate taxes have a negative effect on the economy.[298] Despite this evidence, the corporate tax rate was lowered in 2017, and further exemptions have allowed for an even lower effective corporate tax rate. Meanwhile, a lack of tax revenue has caused 1.2 million government workers to be furloughed since the beginning of the pandemic, as well as extreme cuts to our education budget nationwide.[299] Therefore, a data tax, which is not subject to the same corporate exemptions, is likely

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297 Thomas L. Hungerford, *Corporate Tax Rates and Economic Growth Since 1947*, ECON. POL'Y INST., June 4, 2013 (Issue Brief #364), at 6, https://files.epi.org/2013/ib364-corporate-tax-rates-and-growth.pdf [https://perma.cc/T5TP-J7RM].

298 *Id.* at 2.

299 Michael Leachman & Elizabeth McNichol, *Pandemic's Impact on State Revenues Less than Earlier Expected but Still Severe*, CTR. ON BUDGET & POL'Y PRIORITIES, at 1 (Oct. 30, 2020), https://www.cbpp.org/sites/default/files/atoms/files/10-30-20sfp.pdf [https://perma.cc/A9D8-EYQ7].

to stimulate the economy while benefitting both the government and its citizens.

CONCLUSION

Advances in data and technology have changed almost every aspect of society, but the laws have not changed with them. Our property and privacy rights, promised by the Constitution, are being disregarded when it comes to our most private information. Companies have begun exploiting data, using every aspect of humanity to make a profit. This is done without true consent, and without any compensation for the data society supplies. Large companies then exploit laws to avoid paying taxes on the wealth data generates, placing a higher tax burden on the average person and increasing wealth disparities. As unimaginable technologies continue to emerge, so will continuing harms to society. Our legislature may not always be able to predict these evils, but once they are so evident and egregious, it is their duty to act.